



## New Species of Aquatic Moths from the Philippines (Lepidoptera, Crambidae)

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**Abstract** Twenty eight new species of Acentropinae are described from the Philippines: *Nymphicula negrosensis* sp. nov., *N. mindorensis* sp. nov., *N. zambalensis* sp. nov., *N. samarensis* sp. nov., *N. banauensis* sp. nov., *Eoophyla pulchralis* sp. nov., *E. naumanni* sp. nov., *E. fontis* sp. nov., *E. nussi* sp. nov., *E. richteri* sp. nov., *E. yeni* sp. nov., *E. quezonensis* sp. nov., *E. bicoloris* sp. nov., *E. litoralis* sp. nov., *E. montanalis* sp. nov., *E. callilithalis* sp. nov., *E. schintlmeisteri* sp. nov., *E. leytenensis* sp. nov., *E. cernyi* sp. nov., *E. napoleoni* sp. nov., *E. cervinalis* sp. nov., *Eristena samaritai* sp. nov., *Margarosticha nigrescens* sp. nov., *Paracymoriza fuliginosa* sp. nov., *P. argenteolineata* sp. nov., *P. nigrella* sp. nov., *Parapoynx leucographa* sp. nov., and *P. pycnarmonides* sp. nov. New generic combinations: *Ambia trichostylalis* Hampson, 1897 from Sulawesi is transferred from the *Musotiminae* to *Eoophyla* (Acentropinae) where it stands as *Eoophyla trichostylalis* (Hampson, 1897) comb. n.; *Eoophyla wollastoni* (Rothschild, 1915) comb. n. (*Aulacodes*), *Eoophyla flavifascialis* (Hampson, 1917) comb. n. (*Aulacodes*), *Eoophyla longiplagiialis* (Hampson, 1917) comb. n. (*Aulacodes*), the last three species are from Irian Jaya; and *Eoophyla stresemanni* (Rothschild, 1915) (*Aulacodes*) comb. n. from Ceram. The male and female genitalia are illustrated together with pictures of the adults. The diagnostic features of the species are given and the nearest relatives are indicated. All new species are Philippine endemics. The rate of endemism in the Acentropinae of the Philippines is about 85%. This remarkable high percentage, corroborating the notion that the Philippines are a hot spot of biodiversity in South East Asia, points to the particular geographic situation and geological history of the Philippine Islands.

**Key words** Acentropinae, descriptions, new combinations, fauna, systematics

## INTRODUCTION

In 1996, I started my research on the aquatic moths of the Philippines. The aim of the investigation was to make an inventory of all species, to elucidate their distribution patterns inside the archipelago and to trace their phylogenetic and biogeographic relationships to species and areas outside the Philippines, and in the neighboring countries of Taiwan, China, Malaysia, and Indonesia. The aquatic moths were chosen as a suitable taxon to serve as a parallel test group with that of the caddisflies (Trichoptera) of the Philippines. All aquatic Lepidoptera of the Philippines are assigned to the Acentropinae. Nothing is known about the life history of the endemic species of the Philippines. However, there are more or less extensive descriptions of the life history and larval instars of widespread native species and related species outside the Philippines. Larvae of *Nymphicula* are probably all terrestrial, inhabiting the banks of brooks or creeks. The larvae of *Eoophyla* and *Paracymoriza* are found

in running water of rivers and brooks, whereas *Elophila* and *Parapoynx* inhabit stagnant water. A similar life style should be expected in the endemic species described here.

The highly diverse first stages provide a lot of information, however the morphology of the first stages is very incompletely known and inadequately described. Therefore, a phylogenetic analysis is very difficult (Speidel, 1998c). Our knowledge of the phylogeny can be considerably improved, when the first stages are better described and their characters incorporated in analyses.

Prior to the beginning of this project, the major museum collections in Europe were visited. Nearly all type specimens of species described from South East Asia could be examined. Very few specimens of aquatic Crambidae from the Philippines were traced in the collections. This lack of material necessitated the organization and performance of intensive field work in the Philippines. During a series of expeditions to all major islands, both aquatic moths and caddisflies were collected. The first trip was carried out in 1994, and the latest occurred in 2001. I was twice a member of an expedition team, which allowed me to experience the natural habitats in Luzon, Leyte and Samar.

Over the years, the material for the study continuously increased from expedition to expedition. I started the research project with the completion of the catalogue of the Oriental species of aquatic Crambidae (Speidel & Mey, 1999b), methodologically necessary as a foundation for all further studies. Three preliminary articles were published which provide the description of new species (Speidel, 1998a, b; Speidel & Mey, 1999a). The number of newly encountered species and additional specimens from new localities permanently increased in such an unexpected way, so that all further descriptions were postponed until the end of the field work. Right from the beginning it became obvious that the species found in their natural habitats were nearly all confined to the Philippines and have not yet been found outside the archipelago. There was an unexpected high portion of new species, which nearly all can be regarded as endemics. The total number of supposedly endemic species (which are so far not found outside the Philippines) presently named is 47, which represents a rate of 85% endemism. The present article provides the descriptions of the accumulated new species. A few species of which only single individuals have been collected to date are excluded. In addition to these singletons, I believe some more unknown species certainly wait for their detection in the Philippines, provided the natural habitats are not destroyed. This is a quite evident danger in the densely populated Philippines (Heaney & Regalado, 1998). However, most of the common and widely distributed species should have been found so far.

It is premature to give here a concluding zoogeographical analysis. This will be presented at a later date. At present, 55 species of aquatic Crambidae are known to occur in the Philippines, of which only eight species have a wider distribution outside the Philippines (Mey & Speidel, in prep.).

#### Abbreviations and Acronyms

BMNH	The Natural History Museum, London, Great Britain, formerly British Museum (Natural History)
CIS	Center for Insect Systematics, Kangwon National University, Chuncheon, Korea
MNHU	Museum fuer Naturkunde der Humboldt-Universitaet, Berlin, Germany
PIML	Phyllodrom, Institut und Museum fuer Regenwaldkunde, Leipzig, Germany
RMNH	Nationaal Natuurhistorisch Museum, Leiden, The Netherlands, formerly Rijksmuseum van Natuurlijke Historie
SMTD	Staatliches Museum fuer Tierkunde, Dresden, Germany
WSBN	coll. W. Speidel, Bonn, Germany
ZFMK	Zoologisches Forschungsinstitut und Museum A. Koenig, Bonn, Germany

ZMUC Zoological Museum, University of Copenhagen, Denmark

## DESCRIPTIONS

### *Nymphicula* Snellen, [1880]

This genus is highly diverse in tropical East Asia. Most species are recent discoveries or raised from synonymy of species formerly considered to be widespread. All species are very similar and difficult to discriminate. Only one species-group, the *atriterminalis*-group (Speidel, 1998b) could be quite clearly separated from the great bulk of the genus (*blandialis*-group). The *atriterminalis*-group is clearly predominant in the Philippines. The *blandialis*-group is composed of species with 4 or 5 marginal eye spots on the hindwing, but a further separation on the basis of number of eye spots apparently separates otherwise closely related species. The species-group with 5 eye spots could be named the *patnalis*-group, if separation is desired.

### *Nymphicula negrosensis* sp. nov. (Pl. 1, Figs. 1, 2)

*Types.* Holotype ♂: "Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey"; "Gen. Slide No. 486 ♂ W. Speidel". MNHU. Paratypes: 1 ♀ "Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey", "Gen. Slide No. 487 ♀ W. Speidel". MNHU. 1 ♂ "Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey". MNHU. 1 ♂, 1 ♀ "Philippinen, Luzon, Zambales Mts., Pili, 5.–7. XI. 1998, 150 m, leg. Mey & Speidel". MNHU. 7 ♂, 6 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 6.–7. V. 1999, 250 m, LF, leg. Mey & Ebert". MNHU, 1 ♂ 1 ♀ of them WSNB. 2 ♂, 5 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 5.–6. V. 1999, 110 m, LF, leg. Mey & Ebert". MNHU. 2 ♀ "Philippinen, Luzon, Santa Fe, Bald Mtn, 1150 m, 11.–13. xi. 97, leg. Mey, Ebert, Nuss". MNHU. 2 ♀ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.–19. 3. 00, leg. Mey & Richter". MNHU. 1 ♀ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14–15. XI. 97, leg. Mey, Ebert, Nuss". MNHU. 1 ♀ "Philippinen, Mindoro, Baco, Lantuyan, 13.–18. I. 1998, leg. Mey & Samarita". MNHU.

*Description.* Length of forewing: 5 (♂)–6 (♀) mm. Forewing white, densely powdered with black scales; one apical strigulum white; marginal area yellow; submarginal line and distal fascia coincident, yellow, oblique from costa towards tornus; tornal metallic spot; termen weakly rounded, emargination above tornus weak in both sexes. Hindwing black, narrow basal area almost white.

♂ genitalia (Pl. 5, fig. 58). General structure as in all other species of the genus: valva distally pointed. Aedeagus with single small cornutus.

♀ genitalia (Pl. 10, fig. 86). Ductus bursae short, with weak intermission towards corpus bursae. Signum consisting of pair of denticulate ribbons.

*Distribution.* N. and S. Luzon, Mindoro, Negros. Records of *N. negrosensis* sp. nov. cover an altitudinal range between 110 and 1650 m a.s.l.

*Relationship.* This species and the following belong to the *atriterminalis*-group. Species of this group have more or less confluent marginal spots of the hindwing, which form a black marginal area together with the submarginal line. Furthermore, the forewing-shape is acute due to an emargination of the termen, at least in the males of all members of this group. The group includes the following species described from Luzon, Sangihe and Sulawesi: *Nymphicula atriterminalis* (Hampson, 1917) (Sangihe), *N. acuminatalis* Snellen, 1880

(Sulawesi), *N. manilensis* Sauber, 1902 (Luzon), and *N. infuscatalis* Snellen, 1880 (Sulawesi). Very recently, *N. luzonensis* Yoshiyasu, 1997, *N. meyi* Speidel, 1998, *N. nigrolunalis* Speidel, 1998, *N. albidorsalis* Speidel, 1998, *N. morimotoi* Yoshiyasu, 1997, and *N. eberti* Speidel, 1998 were described from the Philippines and assigned to this group. *Nymphicula negrosensis* sp. nov. is close to *N. mindorensis* sp. nov., but can easily be separated from the latter by only two yellow stripes (corresponding to the submarginal line and the marginal area) in the apical region of the forewing, whereas there are three stripes in *N. mindorensis* sp. nov.. Furthermore, the white base of the hindwing separates this species clearly from *N. mindorensis* sp. nov. This white base is also found in *N. albidorsalis* Speidel, 1998, but a white area is also present in the dorsal region of the forewing. The species differs from most other members in the species-group by the shape of the forewing, which is more rounded and with a less acute apex in the male. Moreover, there is only one white strigulum to the costa of the forewing (two in the other species) and the yellow lines of the forewing are closer to the distal margin of the wing.

*Etymology.* The species is named after the Island Negros (Philippines).

***Nymphicula mindorensis* sp. nov.** (Pl. 1, Figs. 2, 3)

*Types.* Holotype ♂: “Philippinen, Mindoro, Baco, Lantuyan, 13.–18. I. 1998, leg. Mey & Samarita”. MNHU. Paratypes: 7 ♂ “Philippinen, Mindoro, Baco, Lantuyan, 13.–18. I. 1998, leg. Mey & Samarita”. MNHU. 2 ♂ “Philippinen/Mindoro Occid., 10 km E San Jose, Paciolo, 12, 22' N L./121° 08' E Br., Urwaldrand/Sekundaerveget., 100 m, Kalk, 28. 1.–4. 2. 1998, leg. Cerny & Schintlmeister”; one of them “Gen. Slide No. 488 ♂ W. Speidel”; “not found, det. W. Speidel 1997 in Nat. Hist. Mus. London”. WSNB.

*Further material examined* (excluded from the type-series): 1 ♀ “Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey”; “Gen. Slide No. 489 ♀ W. Speidel” MNHU.

*Description.* Length of forewing: 6 (♂)–7 (♀) mm. Forewing white, densely powdered with black scales; basal, postdiscal and anterior region of wing with dense black scaling, dorsal region slightly paler, two apical strigulae white; marginal area yellow; submarginal and postmedial line yellow, converging towards tornus; tornal metallic spot; termen rather straight, with emargination above tornus, especially in male. Hindwing black, basal half paler, with black and white speckles. Traces of black antemedial line in paler basal area.

♂ genitalia (Pl. 5, fig. 59). General structure as in all other species of the genus; valva distally rounded. Aedeagus with small cornutus.

♀ genitalia (Pl. 10, fig. 87). Ductus bursae slender, long, signum lacking in corpus bursae.

*Distribution.* Mindoro, Negros. Records indicate that *Nymphicula mindorensis* sp. nov. was found between 100 and 750 m a.s.l.

*Relationship.* This species belongs to the *atrterminalis*-group like the previous species. It is very close to *N. morimotoi* Yoshiyasu, 1997, but much paler, especially at the base of the hindwing. It is also similar to *N. morimotoi* in the rounded shape of the valva, whereas the valva is pointed in most other species.

*Etymology.* The species is named after the Island Mindoro (Philippines).

*Discussion.* It is not absolutely certain whether the single female from Negros is correctly associated with the males from Mindoro, but there is a high similarity and so far I do not assume a further species.

***Nymphicula zambalensis* sp. nov.** (Pl. 1, Figs. 5, 6)

*Types.* Holotype ♂: “Philippinen, Luzon, Zambales Mtn, Coto, 6.–7. V. 1999, 250 m, LF,

leg. Mey & Ebert". MNHU. Paratypes: 3 ♂ 9 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 6.-7. V. 1999, 250 m, LF, leg. Mey & Ebert"; "Genitalia Slide 475 ♂/477 ♂/476 ♀ W. Speidel". MNHU, 1 ♂ 1 ♀ WSBN.

*Description.* Length of forewing: 5 (♂)-6 (♀) mm. Forewing white, densely powdered with gray scales; two apical strigulae white; marginal area brownish; submarginal and postmedial line brownish, converging towards tornus; tornal metallic spot indistinct; termen slightly rounded. Hindwing white, powdered with gray scales, especially in medial area where continuous fascia is formed by dense scaling. Five more or less fused black marginal eye spots present.

♂ genitalia (Pl. 5, fig. 61). General structure as in all other species of the genus; valva distally pointed. Aedeagus comparatively long, with single cornutus.

♀ genitalia (Pl. 10, fig. 88). Long pair of ribbon-like spinulose signa fills almost third of corpus bursae.

*Distribution.* N. Luzon (Zambales Mountains). The specimens of *Nymphicula zambalensis* sp. nov. were found at an elevation of about 250 m a. s. l.

*Relationship.* This species belongs to the *patnalis*-group with its five marginal spots in the hindwing (if separation of this group from the *blandialis*-group with four marginal spots in the hindwing is desired), and may be distantly related to *N. yoshiyasui* Agassiz, 2002 from Japan and *N. junctalis* (Hampson, 1891). It widely differs from these species by the strong fusion of the marginal spots, the nearly complete absence of yellow markings in the hindwing and the brownish colour of the forewing fasciae, which are yellow in *N. yoshiyasui* and *N. junctalis*. Furthermore, there is a gray medial area running continuously from the costa to the anal margin of the hindwing, which is absent in the other mentioned species. *Nymphicula zambalensis* sp. nov. is also similar to *N. luzonensis* Yoshiyasu, 1997, which has the black marginal spots of the hindwing much more confluent.

*Etymology.* The name is derived from the Zambales Mts. in Luzon (Philippines).

#### *Nymphicula samarensis* sp. nov. (Pl. 1, Figs. 7, 8)

*Types.* Holotype ♂: "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. Paratypes: 1 ♂ "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel"; "Gen. Slide No. ♂ 531 W. Speidel". MNHU. 1 ♀ "Philippinen, Samar, San Mateo, Borongan, 26. 4. 1997, 40 m, leg. Mey & Speidel". MNHU. 1 ♂ 2 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 6.-7. V. 1999, 250 m, LF, leg. Mey & Ebert" "Genitalia Slide 479 ♂ W. Speidel". MNHU. 1 ♂ 3 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 5.-6. V. 1999, 110 m, LF, leg. Mey & Ebert" "Gen. Slide No. ♀ 478 W. Speidel". MNHU, 1 ♀ WSBN. 1 ♂ 1 ♀ "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. 3 ♂ "Philippinen, Samar, Gandara, LF, 25. 4. 1997, leg. Mey & Speidel". MNHU, 1 ♂ WSBN. 2 ♂ "Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel". MNHU. 1 ♂ 2 ♀ "Philippinen, Javier, Bito river, 19. 4. 1997, ca. 50 m, leg. Mey & Speidel". MNHU, 1 ♂ 1 ♀ CIS.

*Description.* Length of forewing: 5 mm. Forewing white, densely powdered with pale gray scales; two apical strigulae white; marginal area yellow; submarginal and postmedial line yellow, converging towards tornus; tornal metallic spot present; termen slightly rounded. Hindwing white, powdered with pale gray scales. Four black marginal spots in white marginal area, proximally preceded by straight pale gray submarginal line.

♂ genitalia (Pl. 5, fig. 61). General structure as in all other species of the genus: valva distally more or less rounded. Aedeagus lacking cornutus.

♀ genitalia (Pl. 10, fig. 89). Ductus bursae short, broad, without intermission towards

corpus bursae; latter with weakly denticulated ribbon-like signum.

*Distribution.* N. Luzon, Negros, Samar. *Nymphicula samarensis* sp. nov. was found at elevations between 40 and 250 m a.s.l.

*Relationship.* Belongs to the *blandialis*-group, very near to *Nymphicula saigusai* Yoshiyasu, 1980 from Japan, which has also four marginal spots in the hindwing. It can easily be distinguished from that species by the paler colour and by the straight marginal line of the hindwing situated immediately inside of the black marginal spots, which is undulated around the hindwing spots in *N. saigusai*. This straight line feature is also found in the group of species with five marginal eye spots, where *Nymphicula yoshiyasui* Agassiz, 2002 from Japan seems most similar. There is nearly no trace of yellow scales in the anal region of the hindwing. The anal region of the hindwing has a distinct yellow streak in *N. saigusai*. Moreover, the female genitalia are quite different from those of *N. saigusai* and more closely resemble those of *N. yoshiyasui*.

*Etymology.* The name originates from the island Samar (Philippines).

***Nymphicula banauensis* sp. nov.** (Pl. 1, Fig. 9)

*Types.* Holotype ♂: "Philippinen, N. Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundaerwald/Reisfelder, 16, 54' N Br./121, 06' E Laenge, 25. 9.–19. 10. 1988, leg. Vermolen"; "*Nymphicula* sp. unnamed, det. W. Speidel in Nat. Hist. Mus. London, xii. 1997"; "Gen. Slide No. ♂ 533 W. Speidel". MNHU (ex coll. WSBN). Paratypes: 4 ♂ "Philippinen, N. Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundaerwald/Reisfelder, 16, 54' N Br./121, 06' E Laenge, 22. ix.–16. x. 1988, leg. Cerny & Schintlmeister" (3 ♂ PIML, 1 ♂ WSBN). 1 ♂ "Philippinen, N. Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 16, 54' N Breite/121, 06' E Länge, 1200 m, 22. ix.–16. x. 1988, leg. Vermolen". ZFMK.

*Description.* Length of forewing ♂: 7.5–8.0 mm. Forewing white, densely powdered with blackish-gray scales; two apical strigulae white; marginal area brownish; submarginal and postmedial line brownish, converging towards tornus; tornal metallic spot indistinct; termen rather straight, with emargination above tornus. Hindwing white, densely powdered with blackish gray scales, except in very narrow antemarginal region in which blackish-gray double antemarginal line is visible, which is situated much closer to blackish-gray proximal part of wing than to series of marginal spots. Five strongly fused small black marginal spots present.

♂ genitalia (Pl. 5, fig. 62). General structure as in all other species of the genus; valva pointed. Aedeagus comparatively long, with single small cornutus.

♀ genitalia. Unknown.

*Distribution.* N. Luzon. Discussion: *Nymphicula banauensis* sp. nov. is a species of the higher mountains in N. Luzon.

*Relationship.* The coremata situated ventrally between segments 7 and 8, found in all other species dissected, appears to be reduced in the present species. It is probably related to *N. zambalensis* sp. nov. and shares with that species the relatively large aedeagus provided with a strong cornutus and the brownish colour of the apical fasciae of the forewing. However it widely differs in the hindwing, which lacks the pale base, the black marginal spots are closer and possess a double submarginal line, which is more remote from the black spots.

*Etymology.* The species is named after Banaue, a city in northern Luzon (Philippines).

*Remark.* In the BMNH, there are specimens from Trinidad, Baguio, Benguet (Wileman) and Klondyke, 800', Benguet, Luzon (Wileman), which possibly also belong to the present species.

***Eoophyla* Swinhoe, 1900**

This highly diverse genus contains many tropical and subtropical species in the Old World. Eventually, it should be split into different genera, but this can only be done in a revision of the whole genus. In this context, it may be sufficient to place the species in species-groups. All the species described here lack the basal antennal process. The deep incision in the terminal margin below the apex of the hindwing is not always well developed, and completely absent in some species-groups. Although, there are species of intermediate form between all species-groups, it remains difficult to provide apomorphic characters for the genus as a whole. These apomorphies may include the absence of ocelli and the presence of large, inwardly directed terminal setae of the valvae. However, these characters are also found outside the genus.

***Snelleni*-group of species:**

This group includes very large specimens, with normally four subapical eye spots in the margin of the hindwings, and thus may be related to the *peribocalis*-group. The marginal incision of the hindwing is extremely weak, if at all present, in all species placed in the *snelleni*-group, and there is no basal antennal process in the males. These characters constitute remarkable differences compared to the *peribocalis*-group. Members of the former group include *E. pulchralis* sp. nov., *E. snelleni* Semper, 1902, and *E. mormodes* (Meyrick, 1897). *Eoophyla ectopalis* (Hampson, 1906) is less similar to the other species, but may be also best placed as a member of the present group. The *simplex*-group can eventually be associated with the *snelleni*-group. This group differs, as it has only 3 clear eye spots in the hindwing.

***Eoophyla pulchralis* sp. nov. (Pl. 2, Fig. 20)**

*Types.* Holotype ♂: "Philippinen, Luzon, Benguet, Kabayan, 21. XI. 1997 LF, leg. Mey, Ebert, Nuss". MNHU. Paratypes: 3 ♂ "Philippinen, Luzon, N. Viscaya, Santa Fe, Malico, Bald Mtns, 1150 m, 11.-13. XI. 97, leg. Mey, Ebert, Nuss"; one specimen additionally "Gen. Slide No. 440 ♂ W. Speidel". MNHU, 1 ♂ WSBN.

*Description.* Length of forewing ♂: 13.5–15.0 mm. Ground colour of wings white. Forewing with costa brown. Dico-cellular bar brown, oblique from costa towards tornus, converging towards and fusing with brown submarginal line above tornus. Dorsum and marginal area yellow, yellow dorsum with narrow brown margins at both sides. Hindwing with broad yellow submarginal line, edged with traces of brown lines at both sides. Marginal area yellow, with 4 white eye spots with narrow black margin and distal black point inside.

♂ genitalia (Pl. 7, fig. 70). General structure as in all other species of the genus; valva with 3 apical, inwardly directed setae. Aedeagus with no visible cornuti.

♀ genitalia. Unknown.

*Distribution.* N. Luzon. *Eoophyla pulchralis* sp. nov. is a species of the high mountains in N. Luzon, recorded as high as 1150 m a.s.l.

*Relationship.* This species appears closely related to *E. snelleni* Semper, 1902 (Pl. 4, fig. 54, 55), but widely differs by the yellow dorsum of the forewing and the absence of the brown base of the hindwing. Moreover, the yellow submarginal line is usually much broader in *E. snelleni*. *Eoophyla mormodes* (Meyrick, 1897) is very similar to *E. snelleni*, but differs by the smaller eye spots of the hindwing, which lie not so close to each other. Moreover, the yellow submarginal line in *E. mormodes* is less undulated along its inner side than in *E. snelleni*.

*Etymology.* The name is derived from the Latin *pulcher* (beautiful). It is probably one of the most beautiful species of *Eoophyla* in the Oriental Region.

### *Simplex*-group of species

The two species included here do not have the characteristic four marginal eye spots of the hindwings present in the former group of species. The marginal incision of the hindwing is extremely weak, if at all present, and there is no basal antennal process in the males like in the *snelleni*-group. Both species only possess three large subapical eye spots in the hindwing, with *E. naumanni* sp. nov. having two additional small points around them. In the males, there is a strong costal fold in the forewing in both species.

This group contains *E. simplex* (West, 1931) and *E. naumanni* sp. nov.

The male posterior tibia of *E. naumanni* sp. nov. is densely scaled, spurs partly very short, hidden under the scales, whereas the males of *E. simplex* have normal, unmodified legs.

### *Eoophyla naumanni* sp. nov. (Pl. 2, Figs. 25, 26)

*Types.* Holotype ♂: "Philippinen, Mindanao, 1050 m, Mt. Agtuuganon, 28. 5.-7. 6. 96, leg. Mey". MNHU. Paratypes: 1 ♂ 4 ♀ "Philippinen, Luzon, N. Viscaya, Santa Fe, Malico, Bald Mtns, 1150 m, 11.-13. XI. 97, leg. Mey, Ebert, Nuss". MNHU, 1 ♂ 1 ♀ CIS. 1 ♂ 1 ♀ "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel"; "Gen. Slide No. 461 ♂/463 ♀ W. Speidel". MNHU. 5 ♂ 3 ♀ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.-15. xi. 97, leg. Mey, Ebert, Nuss". MNHU, 1 ♂ 1 ♀ WSBN. 3 ♂ 2 ♀ "Philippinen, Luzon, Mtn. Prov., Chatol, 2100 m, 16.-18. XI. 97, leg. Mey, Ebert, Nuss". MNHU. 1 ♀ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.-15. xi. 97, leg. Mey, Ebert, Nuss"; "Gen. Slide No. ♀ 499 W. Speidel". MNHU. 9 ♀ "Philippinen, Luzon, Mt. Makiling, LF, 30.-31. 3. 2000, leg. Mey & Ebert" MNHU. 2 ♀ "Philippinen, Luzon, Mt. Makiling, 400 m, 14.-16. 3. 2000, LF, leg. W. Mey, K. Ebert". MNHU. 2 ♂ 5 ♀ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.-19. 3. 00, leg. Mey & Richter". MNHU. 1 ♂ "Philippinen, Luzon, Naga, Mt. Isarog, 22. 3. 2000, LF, leg. Mey & Ebert". MNHU. 2 ♂ "Philippinen, Luzon, Mt. Isarog, 400 m, 27. 3. 2000, LF, leg. Mey & Richter". MNHU. 2 ♂ 3 ♀ "Philippinen, Mindoro, Mt. Halcon, 1300 m, 15.-17. I. 1998, leg. Mey & Samarita". MNHU, 1 ♀ WSBN. 2 ♂ 1 ♀ "Philippinen, Mindoro, Mt. Halcon, 1300 m, 15.-17. I. 1998, leg. Mey & Samarita". MNHU. 7 ♂ 3 ♀ "Philippinen, Mindanao, 1050 m, Mt. Agtuuganon, 28. 5.-7. 6. 96, leg. Mey". MNHU, 1 ♂ ♀ WSBN. 2 ♂ 3 ♀ "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel". MNHU. 1 ♂ 1 ♀ "Philippinen, Leyte, Lake Danao, 650 m, 14.-17. 4. 1997, leg. Mey & Speidel". MNHU. 2 ♀ "Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel". MNHU. 3 ♂ 5 ♀ "Philippinen, Luzon, Naga, Mt. Isarog, 22. 3. 2000, LF, leg. Mey & Ebert". MNHU, 1 ♂ ♀ WSBN. 7 ♀ "Philippinen, Luzon, Mt. Isarog, 400 m, 27. 3. 2000, LF, leg. Mey & Richter". MNHU. 1 ♀ "Philippinen, Luzon, Mtn Prov., Mt. Data, 2256 m, 18. XI. 1997, leg. Mey, Ebert, Nuss". MNHU. 1 ♂ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14-15. XI. 97, leg. Mey, Ebert, Nuss". MNHU. 2 ♀ "Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert" MNHU. 1 ♀ "Philippinen/Luzon-Quezon, Tanawan, 14 km S Real, 14, 34' N/121, 33 E Br., Sekundaerer Mittelgebirgswald, 600 m, 23. 1. 1988, leg. Cerny & Schintlmeister"; "Gen. Slide No. ♀ 538 W. Speidel". WSBN. 1 ♀ "Phil./N. Luzon, Mts. Prov. 22 km SE Bontoc, Mt. Amuyao, 1900 m, 17 00' N Breite/121 09' E Laenge, Nebelwald/ Pinuskultr. 25. ix. 1988, leg. Cerny & Schintlmeister"; "Gen. Slide No. ♀ 530 W. Speidel". WSBN. 1 ♂ "Phil./N. Luzon, Mts. Prov. 22 km SE Bontoc, Mt. Amuyao, 1900 m, 17 00' N Breite/121 09'



E Laenge, Nebelwald/Pinuskultr. 25. ix. 1988, leg. Cerny & Schintlmeister". WSNB. 1 ♀ "Phil./MINDANAO, Bukidnon, Dalongdong, 40 km NW Maramag, Urwaldrand, 800 m, 7 53' N Br/124 40' E Laenge, 01.–03. x. 1988, leg. Cerny & Schintlmeister". PIML. 1 ♂ "Philippinen/N-Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundaerwald/Reisfelder, 1200 m, 16° 54' N Br./121° 06' E Laenge, 22. ix.–16. x. 1988, leg. Cerny & Schintlmeister". PIML. 3 ♂ 6 ♀ "Philippines, South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 530 m, submontane forest, at lighth, 22. iii. 2000, leg. M. Nuss". SMTD. 1 ♂ 1 ♀ "Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55' N 122° 57' E, 100 m, 28. iii. 2000, leg. M. Nuss". SMTD, the ♂ WSNB. 4 ♀ "Philippines, South Luzon, Mt. Banahaw, 14° 02' N 121° 27' E 650 m, secondary forest, at light, 17.–18. iii. 2000, leg. M. Nuss". SMTD. 1 ♀ "Philippines, South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 400 m, gallery forest, at light, 27. iii. 2000, leg. M. Nuss". SMTD. 1 ♂ "Philippines, South Luzon, Los Banos, Mt. Makiling, 14° 08' N 121° 14' E, 470 m, secondary forest, at light, 31. iii. 2000, leg. M. Nuss" SMTD. 1 ♀ "Philippines, Palawan, Pinigisan, 600 meter, 7. Sept. 1961, Noona Dan Exp. 61–62". ZMUC.

*Description.* Length of forewing: 11 (♂)–14 (♀) mm. Forewing yellow except narrow white antemarginal line not reaching dorsum. Round dark–gray disco–cellular spot present. Hindwing yellow (pale yellow in female) with weak black submarginal line and 5 small black marginal spots, of which upper one is very small, line–shaped, and inferior ones reduced to black points. Three medial black marginal spots proximally preceded by small white crescents with black margin proximally.

♂ genitalia (Pl. 7, fig. 73). General structure as in all other species of the genus: with 3 apical, inwardly directed setae. Vinculum with rather large saccus. Aedeagus with no visible cornuti, with patch of stronger sclerotization. Uncus is shorter and gnathos stouter than in related *E. simplex* which has similar genitalia.

♀ genitalia (Pl. 12, fig. 96). Ductus bursae slender, with origin of ductus seminalis in lower third, closer to corpus, colliculum lacking. Corpus bursae very elongate, with one longitudinal side more flattened than other and no clear signum. Apex of corpus bursae more sclerotized. In related *E. simplex*, signum consists of long sclerotized ribbon, appearing to consist of 2 parallel subunits.

*Distribution.* N. and S. Luzon, Mindoro, Palawan, Leyte, Mindanao. Records of *Eoophyla naumannii* sp. nov. cover a considerable altitude, ranging between 90 and 1900 m a.s.l.

*Relationship.* Very near *Eoophyla simplex* (West, 1931), but with smaller discoidal spot of the forewing, five widely separate black eye spots or points on the hindwing (3 only in *simplex*).

*Etymology.* Named after Prof. Dr. C. M. Naumann, a dedicated student on Lepidoptera.

### *Angustalis*–group of species

In this group, there are two distinct eye spots in the subapical area of the hindwing, often with a weakly indicated additional third spot below them. There is a deep incision in the terminal margin below the apex of the hindwing. The species–group may be related to the *crassicornalis*–group of species, but differs by the submarginal fascia of the hindwing, which is fused with the marginal area. The latter character is also present in some species of the genus *Agassiziella*, but these species lack the large terminal setae of the valva.

The following Philippine species are placed in this group: *E. fontis* sp. nov., *E. angustalis* (Sauber, 1902) from Mindanao and *E. nussi* sp. nov. *Eoophyla angustalis* is a problematic species, as the abdomen is lacking in the single type–specimen. However, the figured specimen (pl. 4, fig. 51) from Mindanao could represent this species though it differs slightly

from the type specimen. There is an additional, undescribed taxon similar to *E. angustalis* in North Luzon, which is still under study.

Outside the Philippines, the group is represented in Sulawesi by the species *E. idiotis* (Meyrick, 1894), *E. discalis* (Hampson, 1906) and *E. trichostylalis* (Hampson, 1897) **comb. n.** (described in *Ambia*) and in Talaut by *E. metriodora* (Meyrick, 1897). There are several undescribed species in Sulawesi, which belong to the present group.

*Eoophyla fontis* sp. nov. (Pl. 2, Figs. 21, 22)

*Types.* Holotype ♂: "Philippinen, Samar, Loquilocon, 80 m, 27. 4. 1997, Ulut river, leg. Mey & Speidel". MNHU. Paratypes: 3 ♂ "Philippinen, Samar, Loquilocon, 80 m, 27. 4. 1997, Ulut river, leg. Mey & Speidel"; one additionaly "Gen. Slide No. ♂ 529 W. Speidel". MNHU, 1 ♂ WSBN. 3 ♀ "Philippinen, Samar, Loquilocon, 80 m, 27. 4. 1997, Ulut river, leg. Mey & Speidel"; one additionaly "Gen. Slide No. ♀ 528 W. Speidel". MNHU.

*Description.* Length of forewing: 11 (♂)–13 (♀) mm. Ground colour of wings white. Forewing with costa brown. Disco-cellular bar brown, triangular, fused with brown costa. Submarginal line broad, brown, not reaching orange dorsal margin. Marginal area orange, bordered inside by narrow brown line. Hindwing with broad orange submarginal line, bordered brown at both sides and not separated from orange marginal area where lie 2 subapical white eye spots with narrow black margin and distal black points inside.

♂ genitalia (Pl. 7, fig. 70). General structure as in all other species of the genus; uncus and gnathos comparatively weakly developed, valva with 3 apical, inwardly directed setae, longer than half of length of valva. Aedeagus comparatively short and slender.

♀ genitalia (Pl. 12, fig. 94). Ductus bursae well separated from corpus, very long, with small colliculum near to ostium; ductus seminalis originating closely before colliculum. Corpus bursae very small, with no traces of signum.

*Distribution.* Samar. The species was only found near the spring of a little brook at an elevation of about 80 m where it seemed to be highly localised.

*Relationship.* This species is very similar to *E. metriodora* (Meyrick, 1897) from Talaut and *E. idiotis* (Meyrick, 1894) from Sulawesi. However, both species have a narrow, short, white line partly separating the submarginal fascia and the marginal area of the hindwing, which is absent in *E. fontis*. *Eoophyla metriodora* has the two eye spots of the hindwing completely black, without white and the yellow region at the base of the hindwing is less developed than in *E. fontis*. *Eoophyla angustalis* (Sauber, 1902) is also very close, but can be separated by the smaller disco-cellular bar, and the entirely black spots of the hindwing (like *E. metriodora*). *Eoophyla angustalis* differs from *E. metriodora* by the absence of the white line between the marginal area and the submarginal line of the hindwing (pl. 4, fig. 51 represents this species or a close relative). *Eoophyla trichostylalis* (Hampson, 1897) differs from the other species in the entirely white (lacking black point) superior eye-spot of the hindwing.

*Etymology.* fons, Latin, Spring, as the species was found close to the spring of a brook.

*Discussion.* There is also a further, closely related species of which, however, only one ♀ is presently known: "Philippinen, Mindanao, Davao oriental, NO Boston, Caatijaan, 29. 5. 96, leg. W. MEY". MNHU.

*Eoophyla nussi* sp. nov. (Pl. 2 Figs. 23, 24)

*Types.* Holotype ♂: "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss". MNHU. Paratypes: 1 ♂ 4 ♀ "Philippinen, Luzon, N. Viscaya, Santa Fe, Malico, Bald Mtns, 1150 m, 11.–13. XI. 97, leg. Mey, Ebert, Nuss"; "Gen. Slide No. 455 ♀

W. Speidel". MNHU, 1 ♂ 1 ♀ WSNB. 7 ♀ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.–19. 3. 00, leg. Mey & Richter". MNHU. 2 ♂ "Philippinen, Luzon, Mtn. Prov., Chatol, 2100 m, 16.–18. XI. 97, leg. Mey, Ebert, Nuss". MNHU. 2 ♀ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss". MNHU. 1 ♂ "Philippinen, Luzon, Benguet, Kabayan, 21. XI. 1997 LF, leg. Mey, Ebert, Nuss". MNHU. 1 ♂ 1 ♀ "Philippinen, Luzon, Ifugao, Mt. Polis, LF, 13. 11. 1997, 2000 m, leg. Mey, Ebert, Nuss". MNHU. 3 ♀ "Philippinen, Luzon, N. Viscaya, Santa Fe, Malico, Bald Mtns, 1150 m, 11.–13. XI. 97, leg. Mey, Ebert, Nuss". MNHU, 2 ♀ CIS. 1 ♀ "Philippinen, Luzon, Benguet, 19.–21. XI. 97, Adunot–river Unterlauf, leg. Mey, Ebert, Nuss". MNHU. 4 ♂ 9 ♀ "Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss"; one ♀ additional "GU 398 ♀ SP". MNHU. 1 ♂ 1 ♀ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.–19. 3. 00, leg. Mey & Richter"; the ♂ additionaly "Gen. Slide No. ♂ 527 W. Speidel". MNHU. 6 ♂ 3 ♀ "Philippinen, Mindoro, Mt. Halcon, 1300 m, 15.–17. I. 1998, leg. Mey & Samarita". MNHU. 2 ♀ "Philippinen/N–Luzon, Mts. Prvo., Chatol, 15 km SE. Bontoc, Nebelurwald, 1600 m, 17° 02' N. Br./121° 03' E. Laenge, 24. ix., 14. x. 1988, leg. Cerny & Schintlmeister". PIML. 1 ♂ 2 ♀ "Philippines, South Luzon, Mt. Banahaw, 14° 02' N 121° 27' E, 815 m, secondary forest, at light, 19. iii. 2000, leg. M. Nuss". SMTD. 3 ♀ "Philippines, South Luzon, Mt. Banahaw, 14° 02' N 121° 27' E 650 m, secondary forest, at light, 17.–18. iii. 2000, leg. M. Nuss". SMTD. 1 ♀ "Philippinen, N. Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 16, 54' N Breite/121, 06' E Länge, 1200 m, 22. ix.–16. x. 1988, leg. Vermolen". ZFMK.

*Description.* Length of forewing ♂: 9–11 mm, ♀: 9–15 mm. Ground colour of wings white. Forewing with costa yellowish brown. Disco–cellular bar yellowish brown, triangular, fused with costa. Submarginal line broad, yellowish brown, strongly curved towards disco–cellular bar and fused with yellowish dorsal margin. Marginal area yellowish. Basal area of hindwing yellow, with distal brown border. Submarginal line broad, yellowish, bordered brown at both sides and not separated from yellow marginal area, where lie 3 subapical black rectangular eye spots. Marginal area paler towards tornus.

♂ genitalia (Pl. 7, fig. 72). General structure as in all other species of the genus: valva with 2 apical, inwardly directed setae of about half of length of valva. Aedeagus stout, with one large and several smaller cornuti.

♀ genitalia (Pl. 12, fig. 95). Ductus bursae well separated, with broad colliculum at entrance to corpus bursae. Corpus bursae elongate, sack–like, flattened at one longitudinal side. Ductus seminalis originates from corpus bursae near entrance of ductus. Signum consists of patch of strong sclerotization at flattened longitudinal side of corpus.

*Distribution.* N. and S. Luzon, Mindoro. *Eoophyla nussi* sp. nov. is a species of the mountains, found at elevations from 216 to 2100 m a.s.l.

*Relationship.* This species can be separated from the other members of the species–group by the marginal area of the hindwing, which becomes whitish towards the anal angle, and the three elongate rectangular black eye spots. These spots are round in the other species. It also differs from *Eoophyla angustalis* (Sauber, 1902), which looks similar by the paler and less vivid colours and the different shape of the postdiscoial white area which is triangular in *E. nussi* sp. nov. and elongate in *E. angustalis*.

*Etymology.* Named after the collector, Dr. Matthias Nuss.

*Remark.* A series from the lowlands is excluded from the type material: 6 ♀ "Philippinen, Luzon, Bato Springs, 216 m, Mt. Banahaw, 6. 8. 2001, leg. W. Mey". MNHU. These specimens are more vividly coloured, with the inferior eye spots of the hindwing having no white centre.

### *Quinqualis*-group of species

This is a group of small species, all very similar, with eye spots on the hindwings reduced to merely black points. The Philippine species include *Eoophyla richteri* sp. nov., *E. yeni* sp. nov., *E. quezonensis* sp. nov., and *E. bicolensis* sp. nov.

The male mid-femur bears a terminal scale-brush in *E. richteri* sp. nov. and *E. bicolensis* sp. nov., which is absent in *E. quezonensis* sp. nov. and *E. quinqualis* (Snellen, 1892) (males unknown in *E. yeni* sp. nov.).

The spurs of the posterior tibiae are often reduced. The following situation was found concerning the structure of the posterior tibia:

*E. richteri* sp. nov.: ♂ and ♀ have only short terminal spurs.

*E. yeni* sp. nov.: ♀ has only very short terminal spurs (♂ unknown).

*E. quezonensis* sp. nov.: The ♂ has two pairs of spurs of normal length, the supposed ♀ has only very short terminal spurs.

*E. bicolensis* sp. nov.: ♂ ♀ have two pairs of short spurs.

*E. quinqualis* (Snellen, 1892): ♂ ♀ have two pairs of short spurs.

The female genitalia of this group of species resemble *Parapoynx*, but the situation of the colliculum is quite different in these two genera. In *Parapoynx*, it is situated near the ostium, whereas in the *E. quinqualis*-group, it is near the corpus bursae or has a central position.

*Eoophyla richteri* sp. nov. has nearly unicolorous yellowish hindwings, with hardly any traces of lines or fasciae. In *Eoophyla yeni* sp. nov. and *E. quezonensis* sp. nov., there are traces of a black submarginal line in the hindwing, distally followed by a yellowish outer area. *Eoophyla bicolensis* sp. nov. differs from all other species by the presence of a dark line along the costal margin of the hindwing. *Eoophyla yeni* sp. nov. differs from the other species by the presence of a yellow disco-cellular bar in the forewing, bordered by a blackish line at its distal side.

#### *Eoophyla richteri* sp. nov. (Pl. 4, Figs. 56, 57)

*Types.* Holotype ♂: "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel". MNHU. Paratypes: 5 ♂ 1 ♀ "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel"; one ♂ of them "Gen. Slide No. ♂ 496 W. Speidel". MNHU, 1 ♂ WSNB. 12 ♀ "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel"; "Gen. Slide No. ♀ 497 W. Speidel". MNHU, 1 ♀ WSNB. 1 ♀ "Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel". MNHU. 1 ♀ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.-19. 3. 00, leg. Mey & Richter". MNHU. 1 ♀ "Philippinen, Luzon, Zambales Mtn, Coto, 5.-6. V. 1999, 110 m, LF, leg. Mey & Ebert". MNHU.

*Description.* Length of forewing: 8.0 (♂)-9.5 (♀) mm. Male: Forewing white, costal streak gray, in disco-cellular region yellow. Dorsal region yellow, bordered by some black marginal scales in middle. Submarginal area yellow, with weak black border outside. Marginal line black, interrupted. Marginal area yellow. Hindwing yellow, with 2 white subapical eye spots with black margins. Marginal line reduced to two black points. The female is similar, but paler and with white hindwing, which has only medial and marginal area yellow. Males have terminal scale-brush on mid-femur and tufts of long hair-scales on dorsal side of mid-tibia.

♂ genitalia (Pl. 7, fig. 74). General structure as in all other species of the genus; valva with 3 short apical setae of about half of the length of the valva. Aedeagus stout, no cornuti.

♀ genitalia (Pl. 13, fig. 98). Ductus bursae short with gradual transition towards sack-like

corpus bursae. Colliculum in ductus bursae near entrance to corpus. Ductus seminalis from apex of corpus bursae. Signum formed by 2 converging ribbons of stronger sclerotization, with 2 spots of less condensed sclerotization under these ribbons.

*Distribution.* N. Luzon, Leyte. Records of *E. richteri* sp. nov. are all confined to the lowlands between 90 and 120 m a.s.l.

*Relationship.* This species belongs to the *quinqualis*-group of species. It can be discriminated from the related species by the unicolorous hindwing (see comparative diagnosis above).

*Etymology.* Named after the collector and able staff of the Museum fuer Naturkunde, Berlin, Mrs. Viola Richter.

*Eoophyla yeni* sp. nov. (Pl. 3, Fig. 27)

*Types.* Holotype ♀: "Philippinen, Negros, Patag NR, 20.-25. 5. 1996, 750 m, leg. Mey". MNHU. Paratypes: 5 ♀ "Philippinen, Negros, Patag NR, 20.-25. 5. 1996, 750 m, leg. Mey"; "Gen. Slide No. 466 ♀ W. Speidel". MNHU, 1 ♀ WSBN. 5 ♀ "Philippinen, Panay, Antique, 9.-10. 4. 1995, San Remigio, Aningalan, leg. W. Mey"; one additionally "Gen. Slide No. 482 ♀ W. Speidel". MNHU.

*Description.* Length of forewing ♀: 8-9 mm. Forewing white with costal black streak expanding towards yellow triangular disco-cellular bar; latter with black, curved distal border-line. Submarginal line yellow, bordered black outside. Marginal line black, marginal area yellow. Hindwing white, with yellow medial area. Submarginal line reduced to 2 short black streaks. Marginal area yellow, with one subapical white, black bordered eye spot and black point below.

♂ genitalia. Unknown.

♀ genitalia (Pl. 12, fig. 97). Ductus bursae short, with gradual transition towards sack-like, elongate corpus bursae. Corpus with longitudinal signum consisting of spine-shaped sclerotization.

*Distribution.* Panay, Negros. The only elevational record of *Eoophyla yeni* sp. nov. is from 750 m a.s.l.

*Relationship.* *Eoophyla yeni* sp. nov. belongs to the *quinqualis*-group of species and seems to be most closely related to *E. quinqualis* (Snellen, 1892) (originally described under *Oligostigma*), which may be conspecific with *E. argyropis* (Meyrick, 1894) (also originally described under *Oligostigma*), and both taxa are from Sulawesi. However, the latter species differs widely by the broad yellow outer area of the hindwing and the absence of a black submarginal line. There is also a broad yellow area in the hindwing of *Eoophyla basilissa* (Meyrick, 1894) (*Oligostigma*) from Sumbawa and in several similar species from the Australian Region, e.g. *Eoophyla wollastoni* (Rothschild, 1915) **comb. n.** (*Aulacodes*), *Eoophyla flavifascialis* (Hampson, 1917) **comb. n.** (*Aulacodes*), *Eoophyla longiplagialis* (Hampson, 1917) **comb. n.** (*Aulacodes*), the last three species from Irian Jaya, and *Eoophyla stresemanni* (Rothschild, 1915) (*Aulacodes*) **comb. n.** from Ceram.

*Etymology.* Named after Dr. S.-H. Yen, lepidopterist specialized in the present subfamily and Zygaenidae.

*Eoophyla quezonensis* sp. nov. (Pl. 3, Figs. 28, 29, Fig. 30, supposed female)

*Types.* Holotype ♂: "Philippinen, Luzon, Quezon NP., LF 20. 3. 2000, Atimonan, leg. Mey & Richter". MNHU. Paratypes: 1 ♂ "Philippinen, Luzon, Quezon NP., LF 20. 3. 2000, Atimonan, leg. Mey & Richter"; "Genitalia slide ♂ 547 W. Speidel". MNHU. 1 ♂

“Philippinen/Luzon–Quezon, Tanawan, 14 km S Real, 14, 34' N/121, 33 E Br., Sekundaerer Mittelgebirgswald, 600 m, 23. 1. 1988, leg. Cerny & Schintlmeister”. WSBN. 5 ♂ “Philippines, South Luzon, NE of Lucena, Quezon National Park, 175 m, secondary forest, at light, 20. iii. 2000, leg. M. Nuss”. SMTD. 1 ♂ “Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55' N 122° 57' E, 100 m, 28. iii. 2000, leg. M. Nuss”. SMTD. 1 ♂ “Philippines, South Luzon, Mt. Malinao, 13° 24' N 123° 41' E, 50 m, village side, at light, 25.–26. iii. 2000, leg. M. Nuss”; “Gen. Slide No. ♂ 616 W. Speidel”. SMTD. 1 ♂ “Philippines, South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 530 m, submontane forest, at light, 22. iii. 2000, leg. M. Nuss”; “Gen. Slide No. ♂ 615 W. Speidel”. SMTD.

*Description.* Length of forewing ♂: 6–7 mm, supposed ♀: 6–7 mm. Forewing white, with costal brownish suffusion ending acutely before submarginal line, with outer edge bordered blackish. Marginal line black, marginal area yellow. Hindwing white, with black point-shaped traces of submarginal line. Marginal area yellowish, with white subapical eye-spot, 3 black points and short marginal line below it. Legs, including mid-legs of males without apparent scale-brushes or coremata. In males, antemarginal white fascia of forewing approximately same width throughout, eye spots of hindwings reduced to black points, with exception only of one subapical white point.

♂ genitalia (Pl. 7, fig. 75). General structure as in all other species of the genus; valva with 3 apical, inwardly directed setae, clearly longer than half length of valva. Aedeagus comparatively smaller and more slender than in *E. richteri* sp. nov. and *E. bicolensis* sp. nov., with 2 acute thorn-shaped cornuti.

*Distribution.* N. and S. Luzon. Records of *Eoophyla quezonensis* sp. nov. indicate an altitudinal range of between 50 and 600 m a.s.l.

*Relationship.* This species belongs to the *quinqualis*-group of species and is related to *Eoophyla gephyrotis* (Meyrick, 1897) (*Oligostigma*) from Talaut. The latter species differs by the wider yellow outer area of the hindwing.

*Etymology.* Named after the province Quezon, Luzon (Philippines).

*Remark.* The females could not be associated with certainty. There are two candidates which probably represent two different species. Therefore, all the females are excluded from the type series. The first species has a dark spot in the apex of the forewing and the white antemarginal area is rounded at the internal side, hindwing with only one subapical white spot. This species is represented by only a single ♀ “Philippinen, Luzon, Naga, Mt. Isarog, 22. 3. 2000, LF, leg. Mey & Ebert”. MNHU. In the other species (Pl. 3, fig. 30), the antemarginal white fascia of forewing is slightly broadened medially, with the external margin rounded, and 2 black eye spots with white rings in the hindwing. Black submarginal line of hindwing longer than in males. ♀ genitalia (Pl. 13, fig. 99): Ductus bursae slender, well separated from corpus bursae. Colliculum in ductus bursae near entrance to corpus. Ductus seminalis from apex of corpus bursae. Signum formed by 2 converging ribbons of stronger sclerotization with two spots of less condensed sclerotization under these ribbons. Length and orientation of ribbons appears variable. This species is represented by a series of specimens: 1 ♀ “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. My & Ebert”; “Gen. Slide No. 546 ♀ W. Speidel”. MNHU. 1 ♀ “Philippinen, Luzon, Naga, Mt. Isarog, 22. 3. 2000, LF, leg. Mey & Ebert”. MNHU. 1 ♀ “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”; “Gen. Slide No. 554 ♀ W. Speidel”. MNHU. 1 ♀ “Philippinen, Luzon, Mt. Isarog, 400 m, 27. 3. 2000, LF, leg. Mey & Richter”. WSBN. 2 ♀ “Philippines, South Luzon, Mt. Banahaw, 14° 02' N 121° 27' E 815 m, secondary forest, at light, 19. iii. 2000, leg. M. Nuss”. SMTD. 3 ♀ “Philippines, South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 530 m, submontane forest, at light, 22. iii. 2000, leg. M. Nuss”. SMTD.

*Discussion.* A single ♀ “Philippinen, Samar, Concord, Cadac-an, 22.–24. 4. 1997, 150 m,

leg. Mey & Speidel” probably belongs to a further undescribed species.

***Eoophyla bicolensis* sp. nov.** (Pl. 3, Figs. 31, 32)

*Types.* Holotype ♀: “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”. MNHU. Paratypes: 6 ♀ “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”; two of them with additional labels “Gen. Slide No. 500/548 W. Speidel”. MNHU, 2 ♀ WSBN. 1 ♀ “Philippinen, Luzon, Mt. Isarog, 400 m, 27. 3. 2000, LF, leg. Mey & Richter”. MNHU. 1 ♀ “Philippinen, Luzon, Mt. Makiling, LF, 30.–31. 3. 2000, leg. Mey & Ebert”. MNHU. 1 ♀ “Philippinen, Luzon, Mt. Makiling, Flat Rocks, 8. 8. 2001, leg. W. Mey”. MNHU. 1 ♂ 8 ♀ “Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55′ N 122° 57′ E, 100 m, 28. iii. 2000, leg. M. Nuss”; one ♂ additionally “Gen. Slide No. ♂ 614 W. Speidel”. SMTD.

*Description.* Length of forewing: 6 (♂)–7 (♀) mm. Forewing yellowish white, with gray costal streak, with upper half of distal part yellow. Submarginal line broad, yellow, with straight blackish outer border. Marginal line blackish and marginal area yellow. Hindwing yellowish white, medial area yellow, with black outer border. Antemarginal area below black border of medial area white. Marginal area yellow, with one subapical white eye-spot with black margin. Marginal line reduced to 2 black points and 2 black streaks. Mid-leg of male with terminal femoral scale-brush.

♂ genitalia (Pl. 8, fig. 76). General structure as in all other species of the genus: valva comparatively small, with 2 apical, inwardly directed setae of less than half length of valva. Aedeagus comparatively large, no cornuti visible.

♀ genitalia (Pl. 13, fig. 100). Ductus bursae well separated from corpus bursae, with central colliculum. Ductus seminalis originating from ductus bursae under colliculum. Signum formed by 2 parallel or slightly diverging ribbons of stronger sclerotization. Length of these ribbons appears variable.

*Distribution.* S. Luzon. Records of *Eoophyla bicolensis* sp. nov. indicate an altitudinal range of between 100 and 400 m a.s.l.

*Relationship.* Belongs to the *quinqualis*-group of species.

*Etymology.* Named after the locality Bicol National Park, Luzon (Philippines).

***Litoralis*-group of species**

Only the following two newly described Philippine species are known to belong to this group.

Posterior tibiae of the males possess scale brushes and lack visible spurs. The male genitalia lacks the apical, inwardly directed setae. However, a round apical sclerotization and some weak bristles can possibly be interpreted as the base of the former setae.

***Eoophyla litoralis* sp. nov.** (Pl. 3, Figs. 33, 34)

*Types.* Holotype ♂: “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”. MNHU. Paratypes: 30 ♂ 31 ♀ “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”; one ♀ additionally “Gen. Slide No. 456 ♀ W. Speidel”. MNHU, 3 ♂ ♀ WSBN, 2 ♀ CIS. 17 ♂ 3 ♀ “Philippinen, Luzon, Mt. Malinao, Amater, 25.–26. 3. 2000, LF, leg. Mey & Ebert”; one ♂ additionally “Gen. Slide No. 451 ♂ W. Speidel”. MNHU. 1 ♂ “Philippinen, Luzon, Mt. Isarog, 400 m, 27. 3. 2000, LF, leg. Mey & Richter”. MNHU. 2 ♂ 7 ♀ “Philippinen, Luzon, Naga, Mt. Isarog, 22. 3. 2000, LF, leg. Mey & Ebert”. MNHU. 2 ♀

“Philippinen, Quezon, Infanta, Magsaysay, 9.–10. 4. 1997, 90 m, leg. Mey & Speidel”. MNHU. 1 ♀ “Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss”. MNHU. 1 ♀ “Philippinen, Luzon, Benguet, Kabayan, 21. XI. 1997 LF, leg. Mey, Ebert, Nuss”. MNHU. 1 ♂ “Philippines, South Luzon, Mt. Malinao, 13° 24' N 123° 41' E, 50 m, village side, at light, 25.–26. iii. 2000, leg. M. Nuss”. SMTD. 3 ♀ “Philippines, South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 530 m, submontane forest, at lighth, 22. iii. 2000, leg. M. Nuss”. SMTD. 12 ♂ 14 ♀ “Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55' N 122° 57' E, 100 m, 28. iii. 2000, leg. M. Nuss”. SMTD.

*Description.* Length of forewing: 6 (♂)–10 (♀) mm. Male with forewing brown, except postdiscoïdal triangular white spot and narrow, white antemarginal line. Marginal area yellowish. Hindwing almost entirely gray–brown, with 3 marginal, small, subapical white eye spots with black margins and black distal points. Female: Forewing like in male, only paler, hindwing pale gray, with dark gray basal area and traces of dark gray distal fascia, dark gray submarginal fascia and incomplete marginal line. Posterior tibiae of male with brownish scale–brushes.

♂ genitalia (Pl. 8, fig. 77). General structure as indicated for the species–group: without large setae from apex of valva. Aedeagus with slender proximal and stouter distal parts. Distal sclerotized round plate of valva may be more slender and proximal part of aedeagus slightly thicker than otherwise very similar *E. montanalis* sp. nov.

♀ genitalia (Pl. 13, fig. 191). Ovipositor more slender than usual in genus with papillae anales forming more or less acute terminal tip. Ductus bursae long, with fluent transition to small, sack–shaped corpus bursae. No colliculum visible. Signum structures inconspicuous, ribbon–like sclerotization at end of ductus and spot–like sclerotization in corpus bursae present.

*Distribution.* N. and S. Luzon. *Eoophyla litoralis* sp. nov. is a species of lower elevations from 50 to 1650 m a.s.l.

*Relationship.* Closely related to *E. montanalis* sp. nov., but easily separable by the male tibial scaling, which is brownish (whitish in *E. montanalis* sp. nov.).

*Etymology.* *litoralis* (Latin), riparian, as the species is found in lower elevations, close to banks and shores.

### *Eoophyla montanalis* sp. nov. (Pl. 3, Figs. 35, 36)

*Types.* Holotype ♂: “Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss”. MNHU. Paratypes: 2 ♂ 4 ♀ “Philippinen, Luzon, Mtn. Prov., Barlig, 1650 m, 14.–15. xi. 97, leg. Mey, Ebert, Nuss”; three specimens with additional labels “Gen. Slide No. 450 ♂ W. Speidel”, “GU 406 ♂ SP”, and “GU 407 ♀ SP”. MNHU. 3 ♀ “Philippinen, Luzon, Mtn. Prov., Chatol, 2100 m, 16.–18. XI. 97, leg. Mey, Ebert, Nuss”. MNHU. 1 ♀ WSBN. 3 ♀ “Philippinen/N–Luzon, Ifugao, Banaue vic., 20 km N Lagawe, Sekundaerwald/Reisfelder, 1200 m, 16° 54' N Br./121° 06' E Laenge, 22. ix.–16. x. 1988, leg. Cerny & Schintlmeister”. PIML. 1 ♀ “Philipp./N. Luzon, Ifugao, Banaue vic. 20 km N Lagawe, 1200 m/16° 54' N; 121° 06' E, 19, legit T. & F. Vermolen”. PIML. 1 ♀ “Phil./N. Luzon, Mts. Prov. 22 km SE Bontoc, Mt. Amuyao, 1900 m, 17 00' N Breite/121 09' E Laenge, Nebelwald/Pinusukult. 25. ix. 1988, leg. Cerny & Schintlmeister”. WSBN. 1 ♀ “Philippinen, N. Luzon, Ifugao, Banaue vic., 20 km N Lägawe, Sekundärwald/Reisfelder, 16, 54' N Breite/ 121, 06' E Länge, 1200 m, 22. ix.–16. x. 1988, leg. Vermolen”. ZFMK.

*Description.* Length of forewing 8 (♂)–10 (♀) mm. Male with forewing grayish brown, except postdiscoïdal triangular white spot and narrow, white antemarginal line. Marginal area yellowish. Hindwing white, with dark gray basal area. Proximal fascia short, dark gray, with



white basal border. Distal fascia slightly curved, with white external border. Submarginal fascia and marginal area dark gray, latter bordered inside by blackish marginal line. 3 small subapical white eye spots, with black margin and black distal point in marginal area. Female similar to male, only paler. Posterior tibiae of male with whitish scale-brushes.

♂ genitalia (Pl. 8, fig. 78). General structure as indicated for the species-group: lacking large setae from apex of valva. Aedeagus with slender proximal and stouter distal parts. Distal sclerotized round plate of valva may be more slender and proximal part of aedeagus slightly larger than in otherwise very similar *E. montanalis* sp. nov.

♀ genitalia (Pl. 13, fig. 102). Ovipositor more slender than usual in genus, with papillae anales forming more or less acute terminal tip. Ductus bursae long with fluent transition to small, elongate, sack-shaped corpus bursae. No colliculum visible. Signum structures inconspicuous, with spot-like sclerotization in corpus bursae.

*Distribution.* N. Luzon. Discussion: *Eoophyla montanalis* sp. nov. is a species of higher elevations from 1200 to 2100 m a.s.l. It is sympatric at middle elevations with *E. litoralis* sp. nov.

*Relationship.* Closely related to *E. litoralis* sp. nov., but easily separable by the male tibial scaling which is whitish (brownish in *E. litoralis* sp. nov.).

*Etymology.* From the Latin, montanus (mountainous), as the species is found in higher elevations.

### ***Crassicornalis*-group of species**

Two Philippine members of the *crassicornalis*-group have been described in a previous paper (Speidel, 1998a). This group is normally characterised by two eye spots in the hindwing. The following new species is unusual, as it has only one clear eye spot in the hindwing, followed by traces of a second. It is placed in the *crassicornalis*-group because of its decided sexual dimorphism which is common to the other Philippine members of this group. Females of *E. callilithalis* sp. nov. closely resemble females of *E. cernyi* sp. nov., which is placed in the *schintlmeisteri*-group of species because of the structure of the female genitalia. Therefore, the *schintlmeisteri*-group is retained in *Eoophyla*.

### ***Eoophyla callilithalis* sp. nov. (Pl. 3, Figs. 37, 38)**

*Types.* Holotype ♂: "Philippinen/Nord Palawan, S. Vicente, 20 km NEE Roxas, 10, 21' N. L./119. 10' E. Br., Mittelgebirgsurwald, 400 m, 12. 1.-17. 1. 1988, leg. Cerny & Schintlmeister"; "Gen. Slide No. ♂ 542 W. Speidel". MNHU. Paratypes: 2 ♀ "Philippinen/Nord Palawan, S. Vicente, 20 km NEE Roxas, 10, 21' N. L./119. 10' E. Br., Mittelgebirgsurwald, 400 m, 12. 1.-17. 1. 1988, leg. Cerny & Schintlmeister". WSBN. 3 ♂ 10 ♀ "Philippinen/Nord Palawan, S. Vicente, 20 km NEE Roxas, 10, 21' N. L./119. 10' E. Br., Mittelgebirgsurwald, 400 m, 12. 1.-17. 1. 1988, leg. Cerny & Schintlmeister"; "Gen. Slide No. ♀ 545 W. Speidel". WSBN.

*Description.* Length of forewing: 7 mm. The species is sexually dimorphic. Male: Forewing dark brown, except white antemarginal line, and traces of white line posterior to disco-cellular region. Whitish streak present from base to about half of wing. Marginal area yellowish brown. Hindwing yellowish brown, except white infuscated medial area and white narrow antemarginal line. One subapical black eye spot present, with white, crescent-shaped inner border and small, line-shaped black dot posteriorly. Female: Forewing white, basal area to disco-cellular bar brown, basal half of costa brown, distal half yellowish, submarginal line straight, brown, yellowish towards costa, marginal line brown. Marginal area proximally

white, distally yellow. Eye spots as in male. Male and female with full number (0–2–4) of tibial spurs, all very short.

♂ genitalia (Pl. 8, fig. 79). General structure as in all other species of the genus: valva with 2 apical, inwardly directed setae of about half length of valva. Aedeagus comparatively stout.

♀ genitalia (Pl. 15, fig. 108). Ductus bursae moderately long, with colliculum close to ostium. Ductus seminalis from ductus bursae under colliculum. Corpus bursae not clearly separated from ductus. Signum consisting of 2 parallel, short, narrow ribbons of stronger sclerotization in transitional area between ductus and corpus bursae.

*Distribution.* Palawan. The type locality of *Eoophyla callilithalis* sp. nov. is at an elevation of 400 m a.s.l.

*Relationship.* Very similar to *E. cernyi* sp. nov. The corpus bursae lacks a granular surface and shows a more gradual transition towards the ductus bursae. The long signum, consisting of two narrow ribbons, rather than broad as in other *Eoophyla*. Marginal area of the forewing with an inner white border which is absent in *E. cernyi* sp. nov. This species appears to be intermediate between the *crassicornalis* and the *schintlmeisteri*-groups.

*Etymology.* Named so because it is reminiscent of the genus *Callilitha* Munroe, 1959.

### *Schintlmeisteri*-group of species

This group of species includes the following new species: *Eoophyla schintlmeisteri* sp. nov., *E. leytenensis* sp. nov., *E. cernyi* sp. nov., *E. napoleoni* sp. nov., and *E. cervinalis* sp. nov. It was previously planned to assign the species of this group to the genus *Callilitha*, but this idea was reconsidered, as the specialized characters of that genus are not found in the Philippine species, except that the male mid-femur has a terminal scale-brush. This character is also present in some members of the *quinqualis*-group. Presently, *Callilitha* contains only two species from the Solomon Islands. Future research must investigate whether the concept of this genus can be expanded to receive more species. It is then possible that the *E. quinqualis*-and/or the *schintlmeisteri*-group can be placed in this genus as well. However, the main characters separating these species-groups from *Eoophyla* are plesiomorphic. The differences between *Callilitha* and *Eoophyla* enumerated by Munroe (1959), must either be interpreted as plesiomorphic, or, if apomorphic, these structures are not consistently present in the Philippine species. Therefore, it is probable that many more genera have to be described, if the genus *Callilitha* is maintained as a separate phylogenetic entity. The best solution is eventually to sink *Callilitha* into *Eoophyla*.

Characters of the present species-group include: valva with 3 comparatively short, inwardly directed apical setae of half length of the valva or less. Bulbus ejaculatorius long, aedeagus with cornuti absent.

The ductus bursae possesses a clear intermission towards the globular corpus bursae. The surface of the corpus bursae shows a characteristic granular structure. In all males of the group, the spurs of the posterior tibiae are absent, whereas all females which could be checked (*cervinalis*, *napoleoni*, *cernyi*) have two pairs of very short spurs on the posterior tibia.

The species-group is restricted to the Philippine species described here. It may well be possible that other species from outside the Philippines belong in this group, but their female genitalia are unknown and therefore no other species can be included in the present group with certainty. A possible candidate for inclusion is *Eristena endosaris* (Meyrick, 1894) from Pulo Laut, which is only doubtfully included in *Eristena*.

*Remark.* Relations of the *schintlmeisteri* species-group with the genus *Strepsinoma* appear to exist, as some species of *Strepsinoma* have a similar granular surface of the corpus bursae. In *Strepsinoma*, the colliculum is remote from the ostium, which is also the case in the present

species-group and also in the *E. quinqualis*-group. Moreover, there are relations with *Callilitha* (Munroe, 1959), as the male mid-femur has a terminal scale-brush in the schintlmeisteri species-group and in *Callilitha*. No colliculum and granular surface of the corpus bursae is indicated in the figures of the female genitalia of *Callilitha*.

***Eoophyla schintlmeisteri* sp. nov.** (Pl. 3, Figs. 39, 40)

*Types.* Holotype ♂: "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel". MNHU. Paratypes: 1 ♀ "Philippinen, Luzon, Zambales Mts., Pili, 7. XI. 1998, 500 m, leg. Mey & Speidel". MNHU. 2 ♂ 11 ♀ "Philippinen, Quezon, Infanta, Magsaysay, 9.-10. 4. 1997, 90 m, leg. Mey & Speidel"; 3 specimens with additional label "Gen. Slide No. 467 ♀/470 ♀/459 ♂ W. Speidel". MNHU, 1 ♂ WSBN. 8 ♂ 17 ♀ "Philippinen, Laguna, Pangil, LF, ca. 50 m, 11. 4. 1997, leg. Mey & Speidel". MNHU, 1 ♂ 1 ♀ WSBN. 1 ♀ "Philippinen/Luzon-Quezon, Tanawan, 14 km S Real, 14, 34' N/121, 33 E Br., Sekundaerer Mittelgebirgswald, 600 m, 23. 1. 1988, leg. Cerny & Schintlmeister". WSBN. 1 ♂, 4 ♀ "Philippinen, Luzon, Dinalupihan, 9. 5. 99, Roosevelt Nat. Park; LF, leg. Mey & Ebert". MNHU.

*Description.* Length of forewing: 6 (♂)-8 (♀) mm. Forewing white, basal area to disco-cellular bar brown, with longitudinal disco-cellular white streak. White post-discal area triangular. Submarginal line straight, brown. Marginal line brown. Marginal area yellowish brown. Hindwing white, with medial yellowish fascia bordered with brown at both sides. Marginal line brown. Marginal area yellowish brown, with 2 subapical white eye spots bearing 2 distal black points.

♂ genitalia (Pl. 8, fig. 80). Uncus distally not tapered as in other species of group. Valva with 3 indistinct short apical setae of clearly less than half length of valva.

♀ genitalia (Pl. 14, fig. 103). General structure as in the other species of the species-group: colliculum closer to ostium. Corpus bursae, near entrance of ductus, with signum consisting of 2 close sclerotized ribbons of more than third of length of corpus bursae.

*Distribution.* N. Luzon. Records of *E. schintlmeisteri* sp. nov. cover an altitudinal range between about 50 and 600 m a.s.l.

*Relationship.* This species can be easily separated by the white, triangular post-discal area of the forewing, which is reduced or line-shaped in all other species of this group.

*Etymology.* Named after the collector, Dr. Alexander Schintlmeister, Dresden.

***Eoophyla leytenensis* sp. nov.** (Pl. 3, Figs. 41, 42)

*Types.* Holotype ♂: "Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel". MNHU. Paratypes: 1 ♂ 18 ♀ "Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel"; two with additional labels "Gen. Slide No. 481 ♂/480 ♀ W. Speidel". MNHU, 2 ♀ WSBN.

*Description.* Length of forewing: 6 (♂)-8 (♀) mm. Forewing white, with disco-cellular region and costa to submarginal line brown and yellowish, except white, longitudinal streak in discoidal cell. Dorsal area yellowish brown, fused with yellowish brown submarginal line. Marginal line dark brown and marginal area yellowish. Hindwing white, with medial brown fascia, fused apically with marginal area. Marginal line dark brown. Marginal area yellowish, with 2 white subapical eye spots bearing 2 distal black points.

♂ genitalia (Pl. 8, fig. 81). General structure as in the other species of the species-group: valva with 3 comparatively short setae of about half length of valva. Aedeagus comparatively large with stout proximal end.

♀ genitalia (Pl. 14, fig. 104). General structure as in the other species of the species-group; colliculum close to ostium. Signum consisting of sclerotized ribbon situated in ductus busae.

Distribution: Leyte. Discussion: *Eoophyla leytenis* sp. nov. was found at an elevation of 120 m a.s.l.

*Relationship.* This species can easily be separated from *E. schintlmeisteri* sp. nov. by the streak-like white post-discal area (triangular in *E. schintlmeisteri*), and the apparent white longitudinal streaks in the disco-cellular region which are absent in the other species of this group.

*Etymology.* Named after the Island Leyte (Philippines).

***Eoophyla cernyi* sp. nov.** (Pl. 3, Fig. 43, Pl. 4, Fig. 44)

*Types.* Holotype ♂: "Philippinen, Palawan, Mt. St. Paul, 5.-6. 4. 1995, Babuyan-Fluss, Cayasan, leg. W. MEY". MNHU. Paratypes: 4 ♂ 2 ♀ "Philippinen, Palawan, Mt. St. Paul, 5.-6. 4. 1995, Babuyan Fluss, Cayasan, leg. W. Mey"; two specimens additionally "Gen. Slide No. ♀ 498/ ♂ 493 W. Speidel". MNHU. 1 ♂ 1 ♀ "Philippinen, Palawan, Puerto Princesa, Irawan-Fluss river, 7. 4. 1995, leg. W. Mey"; "Gen. Slide No. 474 ♀ W. Speidel". MNHU. 2 ♂ "Philippinen, Palawan, Balsanan Fluss, W. von Puerto Princesa, 3. iv. 1995, leg. W. Mey". MNHU. 2 ♀ "Philippinen/Nord Palawan, S. Vicente, 20 km NEE Roxas, 10, 21' N. L./119. 10' E. Br., Mittelgebirgsurwald, 400 m, 12. 1.-17. 1. 1988, leg. Cerny & Schintlmeister"; one specimen additionally "Gen. Slide No. ♀ 540 W. Speidel". WSBN. 1 ♂ "Philippinen/Nord Palawan, S. Vicente, 20 km NEE Roxas, 10, 21' N. L./119. 10' E. Br., Mittelgebirgsurwald, 400 m, 12. 1.-17. 1. 1988, leg. Cerny & Schintlmeister"; "Gen. Slide No. ♂ 543 W. Speidel". WSBN. 1 ♀ "Philippinen/Sued PALAWAN, Mt. Gantung, Fuss, 200 m, 9, 01' N. L./117, 57' E. Br., Zypres0000senwald/Sekundaerveg., 19. 1.-21. 1. 1988, leg. Cerny & Schintlmeister". WSBN.

*Description.* Length of forewing: 6 (♂)-7 (♀) mm. Forewing white, upper part to disco-cellular bar pale brown, dorsal area yellow. Submarginal line straight, yellowish brown, fused with yellow dorsal area. Marginal line blackish and marginal area yellow. Hindwing white, with medial yellow fascia bordered brown at both sides and apically fused with marginal area. Marginal line dark brown. Marginal area yellowish with only one black subapical eye spot, with white crescent-shaped inner border and small line-shaped black dot posteriorly.

♂ genitalia (Pl. 9, fig. 82). General structure as in the other species of the species-group; 3 apical setae of slightly less than half length of valva. Gnathos terminally with acute chin.

♀ genitalia (Pl. 14, fig. 105). General structure as in the other species of the species-group; colliculum closer to ostium. Corpus bursae with signum close to entrance of ductus, consisting of 2 diverging ribbons of stronger sclerotization of about third length of corpus.

*Distribution.* Palawan, in elevations of 200-400 m.

*Relationship.* The female is rather similar to the sympatric *E. callilithalis* sp. nov. However, the genitalia and associated males widely differ, warranting assignment to different species-groups. It may be mentioned that there is an additional species of *Eoophyla* with similar females in Palawan, which also seems to be undescribed. The present species may be related to *E. leytenis* sp. nov. (but this species has white longitudinal discoidal streaks on the forewing) or *E. napoleoni* sp. nov. (but this species has the white post-discal area of the forewing reduced or angled and the medial yellow fascia lacks a clear inner border).

*Etymology.* Named after the collector Dr. Karel Cerny, Austria.

***Eoophyla napoleoni* sp. nov.** (Pl. 4, Figs. 45, 46)

**Types.** Holotype ♂: “Philippines, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel”; “Gen. Slide No. 557 ♂ W. Speidel”. MNHU. Paratypes: 35 ♀ “Philippines, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel”; “Gen. Slide No. ♀ 495 W. Speidel”. MNHU, 1 ♀ WSBN. 13 ♀ “Philippines, Samar, San Mateo, Borongan, 26. 4 1997, 40 m, leg. Mey & Speidel”. MNHU, 1 ♀ WSBN. 1 ♀ “Philippines, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel”; “Gen. Slide No. 465 W. Speidel”. MNHU.

**Description.** Length of forewing: 6 (♂)–7 (♀) mm. Forewing white, upper part to disco-cellular bar pale brown, dorsal area yellow. Submarginal line straight, yellowish brown, expanding towards dorsum and almost completely fused with pale brown basal area, leaving only very small white, angled post-discal area. Marginal line blackish and marginal area yellow. Hindwing white, with medial yellow fascia bordered brown at distal side and apically fused with marginal area. Marginal line dark brown, interrupted. Marginal area yellowish with 2 white, marginal subapical eye spots bearing 2 distal black points.

♂ genitalia (Pl. 9, fig. 83). General structure as in all other species of the species-group; 2 stout and 1 slender apical, inwardly directed setae of about half length of valva. Aedeagus slightly stouter than in otherwise very similar *E. cervinalis* sp. nov.

♀ genitalia (Pl. 14, fig. 106). General structure as in the other species of the species-group; colliculum about in the centre of ductus bursae. Corpus bursae with signum, close to entrance of ductus, consisting of 2 diverging ribbons of stronger sclerotization of about a third of length of corpus.

**Distribution.** Leyte, Samar. Records of *Eoophyla napoleoni* sp. nov. cover an altitudinal range between 40 and 150 m a.s.l.

**Relationship.** Seems to be most closely related to *E. cervinalis* sp. nov., which differs by the fawn colour of the markings and the complete absence of yellow elements. There are differences in the genitalia of these two taxa, especially in the female, which make it improbable that they can be regarded as merely subspecies.

**Etymology.** Named after our driver in Leyte and Samar with the nick-name ‘Nap’ for Napoleon.

***Eoophyla cervinalis* sp. nov.** (Pl. 4, Figs. 47, 48)

**Types.** Holotype ♂: “Philippines, Mindanao, Surigao del Sur, SW Lingig, 28. 5. 1996, LF, leg. W. MEY”; “Genitalia Slide 473 ♂ W. Speidel”. MNHU. Paratypes: 1 ♀ “Philippines, Mindanao, 1050 m, Mt. Agtuaganon, 28. 5.-7. 6. 96, leg. Mey”; “Gen. Slide No. ♀ 534 W. Speidel”. MNHU. 1 ♂ “Philippines, Mindanao Id., South Cotabato, Parker Mts, Salacale, 770 m, lighttrap, April 2.-12. 1985, R. A. Mueller legit et coll.”. RMNH.

**Description.** Length of forewing ♂: 7–8 mm, ♀: 7 mm. Forewing white, upper part to disco-cellular bar pale fawn-coloured, dorsal part also fawn-coloured, both parts separated by indistinct longitudinal whitish streak. Submarginal line straight, fawn-coloured, not completely joined with dorsal streak. Dorsal streak fused with fawn-coloured marginal area. White post-discal area very indistinct and narrow, angled. Marginal line blackish. Hindwing white, with medial fawn-coloured fascia with indistinct distal dark-brown border, fused with marginal area. Marginal line dark brown, interrupted. Marginal area fawn-coloured, with 2 subapical white eye spots bearing 2 distal black points. Ground colour of both wings paler in female.

♂ genitalia (Pl. 9, fig. 84). General structure as in all other species of the species-group; 2

thick and 1 thin apical, inwardly directed setae of about half length of valva. Aedeagus slightly slenderer distally in otherwise very similar *E. napoleoni* sp. nov.

♀ genitalia (Pl. 15, fig. 107). General structure as in the other species of the group; colliculum about in centre of ductus bursae. Corpus bursae with signum, close to entrance of ductus, consisting of 2 diverging ribbons of stronger sclerotization of less than third of length of corpus.

*Distribution.* Mindanao. *Eoophyla cervinalis* sp. nov. was found at elevations between 770 and 1050 m a.s.l.

*Relationship.* The species is most closely related to *E. napoleoni* sp. nov.

*Etymology.* Named after the Latin, cervus (deer), because of the colour of this species.

***Eristena samaritai* sp. nov.** (Pl. 4, Figs. 49, 50)

*Types.* Holotype ♂: "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. Paratypes: 20 ♂ 12 ♀ "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel"; "Genitalia Slide 471 ♂/472 ♀ W. Speidel". MNHU, 2 ♂, 2 ♀ WSBN, 2 ♀ CIS. 1 ♂ "Philippinen, Samar, Loquilocon, 80 m, 27. 4. 1997, Ulut river, leg. Mey & Speidel". MNHU. 1 ♂ 2 ♀ "Philippinen, Mindanao, Surigao del Sur, SW Lingig, 28. 5. 1996, LF, leg. W. MEY". MNHU. 2 ♂ 2 ♀ "Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert". MNHU. 1 ♀ "Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55' N 122° 57' E, 100 m, 28. iii. 2000, leg. M. Nuss". SMTD.

*Description.* Length of forewing: 6 (♂)–8 (♀) mm. Forewing white, termen angled in middle, costal area grayish from base to disco-cellular region. Two black spots, one at costa, other in central area of forewing interpreted as remnants of distal fascia. Submarginal line black, straight, with yellow scales basally. White ante-marginal fascia narrow. Marginal line blackish and marginal area yellow, with apical blackish fringes. Hindwing white, with minute white base; subbasal area yellow, externally bordered blackish. Marginal line blackish. Marginal area broad yellowish with one subapical white eye spot and black point posteriorly, bearing 2 distal black points.

♂ genitalia (Pl. 9, fig. 85). Rather characteristic, as both large saccus and large sacculus present. Aedeagus long.

♀ genitalia (Pl. 15, fig. 109). Colliculum weakly indicated, near ostium. Bursa elongate, with no individual ductus bursae. Signum consisting of single broad ribbon of stronger sclerotization, apparently interrupted to form a larger superior and a smaller inferior part.

*Distribution.* S. Luzon, Samar, Mindanao. Records of *Eristena samaritai* sp. nov. cover an altitudinal range between 80 and 200 m a.s.l.

*Relationship.* There are no inwardly directed apical setae of the valva. Therefore, this species is placed in *Eristena*. The male genitalia are quite unique among the *Eristena*-species in which this structure is known. There is a large saccus and distally broadened valvae.

*Etymology.* Named after Venancio Samarita, a lepidopterist of the Philippine National Museum and helpful colleague.

***Margarosticha nigrescens* sp. nov.** (Pl. 1, Figs. 1, 2)

*Types.* Holotype ♂: "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. Paratypes: 1 ♀ "Philippinen, Samar, Concord, Cadac-an, 22.-24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. 6 ♂, 18 ♀ "Philippinen, Palawan, Luczviminda, SW of Puerto Princesa, 3. 4. 1995, leg. W. MEY". MNHU, 1 ♂ 1 ♀ WSBN. 7 ♂ 4 ♀

“Philippinen, S–Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel”; one specimen additionally “Gen. Slide No. 454 ♂ W. Speidel”. MNHU, 1 ♂ 1 ♀ CIS. 2 ♀ “Philippinen, Samar, Loquilocon, 80 m, 27. 4. 1997, Ulut river, leg. Mey & Speidel”; one with additional label “Gen. Slide No. 453 ♀ W. Speidel”. MNHU. 2 ♂ “Philippinen, Leyte, Baybay, VISCA, 13. 4. 1997, leg. Mey & Speidel”. MNHU. 1 ♀ “Philippinen, Mindoro, Naujan Lake, Pasi II, Socorro, 18. I. 1998, leg. Mey & Samarita”. MNHU. 1 ♂ “Philippinen, Mindanao, Surigao del Sur, SW Lingig, 28. 5. 1996, LF, leg. W. MEY”; “Gen. Slide No. 464 ♂ W. Speidel”. MNHU. 4 ♀ “Philippinen, Palawan, Mt. St. Paul, 5.–6. 4. 1995, Babuyan–Fluss, Cayasan, leg. W. Mey”. MNHU. 1 ♀ “Philippinen, Palawan, Luczviminda, SW von Puerto Princesa, 3. 4. 1995, leg. W. MEY”. MNHU. 1 ♂ “Philippinen, Luzon, Zambales Mts., Pili, 5.–7. XI. 1998, 150 m, leg. Mey & Speidel”. MNHU. 1 ♂ “Philippinen, Luzon, Mt. Malinao, Amater, 25.–26. 3. 2000, LF, leg. Mey & Ebert”. MNHU.

*Description.* Length of forewing ♂: 8–9 mm, ♀: 11–12 mm. Forewing dark ochreous gray, antemarginal fascia white, marginal area yellowish gray. Traces of whitish, more or less infuscated costal crescent situated inside submarginal ochreous line, especially apparent in female. Female with additional whitish rectangular spot on dorsum in subbasal area. Hindwing of male dark gray speckled with white except dark ochreous gray narrow basal area. Medial area with yellowish fascia angled near tornus. Five round black eye spots in marginal area. Female with additional broad white fascia between ochreous gray basal area and yellowish medial area.

♂ genitalia (Pl. 5, fig. 63). Valva wide, spoon-shaped, easily damaged during preparation if too strongly pressed. Sacculus wide, lobed at distal end. Three large, curved setae on terminal lobe of sacculus and series of smaller curved setae between these large setae and margin of valva. Aedeagus with long, spine-like cornutus.

♀ genitalia (Pl. 11, fig. 90). Ductus bursae wide, with gradual transition towards corpus. Small colliculum present in upper third near ostium. Lacking distinct signum in elongate corpus bursae.

*Distribution.* N. Luzon, Mindanao, Palawan, Leyte, Samar, Mindanao. *Margarosticha nigrescens* sp. nov. was found between 80 and 150 m a.s.l.

*Relationship.* The species is closely related to *Margarosticha bimaculalis* Snellen, 1880 from Sulawesi and was probably recorded under this name from the Philippines by Semper (1896 ff. [1902]). The Philippine species, however, is much darker. Moreover, *M. bimaculalis* shows a straight triangular yellow medial area of the hindwing not reaching the anal margin (Snellen, 1880, 1884). This yellow area is angled in the lower third and reaches the anal margin in *M. nigrescens* sp. nov. Specimens from Bantimurung (Sulawesi) doubtfully associated with *M. bimaculalis* show the shape and length of the yellow medial area of the hindwing to be variable, but females never have a completely white fascia proximally preceding the yellow medial area. These habitual differences make it unlikely that *M. nigrescens* sp. nov. and *M. bimaculalis* can be treated as conspecific, though the male genitalia of the specimens from Bantimurung hardly differ, but the status of *M. nigrescens* as a subspecies of *M. bimaculalis* cannot be completely excluded. The male genitalia of these specimens from Bantimurung differ only in the stronger terminal lobe of the sacculus and the more ventral position of the inner large seta on this terminal lobe.

*Etymology.* *nigrescere*, Latin, to become black.

### ***Paracymoriza* Warren, 1890**

The genus is defined here in a very broad sense. For more details and separation of species–groups (which could be alternatively given genus–rank) see Speidel & Mey (1999b).

*Paracymoriza fuliginosa* sp. nov. (Pl. 1, Figs. 12, 13)

*Types.* Holotype ♂: “Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey”. MNHU. Paratypes: 1 ♂ “Philippinen, Luzon, Bicol NP., 200 m, 28. 3. 2000, LF, leg. Mey & Ebert”, MNHU. 7 ♂ “Philippines, South Luzon, Bicol National Park, river in cleared forest area, 13° 55′ N 122° 57′ E, 100 m, 28. iii. 2000, leg. M. Nuss”. SMTD, WSBN. 1 ♂ “Philippinen, Negros, Patag NR, 20.–25. 5. 1996, 750 m, leg. Mey”. MNHU. 2 ♂ 1 ♀ “Philippinen, Leyte, Lake Danao, 650 m, 14.–17. 4. 1997, leg. Mey & Speidel”; two of them with additional label “Gen. Slide No. 442 ♂/452 ♀ W. Speidel”. MNHU. 2 ♀ “Philippinen, Luzon, Benguet, 19.–21. XI. 97, Adunot–river Unterlauf, leg. Mey, Ebert, Nuss”. MNHU.

*Description.* Length of forewing ♂: 13–14, 5 mm, ♀: 17–20 mm. White ground colour strongly reduced, therefore markings not very contrasting. Forewing: Inner, disco-cellular and submarginal area dark gray. Proximal and distal fascia narrow, dark gray. Proximal fascia bordered pale gray at inner side, distal fascia bordered pale gray along outer side. Hindwing: Ground colour only visible basally and in narrow medial area. Proximal and distal fascia almost straight, close together, proximal fascia bordered by pale gray ground colour at proximal side, outer margin of distal fascia bordered in same colour. Submarginal area broad, ground colour reduced to narrow ante-marginal fascia before dark gray marginal area. Female more infuscated than male, especially in forewing.

♂ genitalia (Pl. 6, fig. 64). Valva distally pointed, with 4+1 large, apical, inwardly directed setae; setae partly terminally flattened and widened. Gnathos terminally rounded. Uncus triangular, pointed, not rounded towards end. Aedeagus with single long cornutus. Differences to the related *P. vagalis* (Walker, [1866]): 5 apical setae (instead of 3 in *P. vagalis*), apex of valva pointed (rounded in *P. vagalis*), uncus triangular, pointed (terminally rounded in *P. vagalis*), gnathos terminally rounded (lacking chin-like ventral end as shown in some *P. vagalis*-preparations), comparatively shorter aedeagus.

♀ genitalia (Pl. 11, fig. 91). Ductus bursae very short, with large central colliculum. Corpus bursae very large, with one longitudinal side more even than other (more slender in *P. vagalis*).

*Distribution.* N. and S. Luzon, Negros, Leyte. Records of *Paracymoriza fuliginosa* sp. nov. cover an altitudinal range between 100 and 750 m a.s.l.

*Relationship.* Closely related to *Paracymoriza vagalis*, which may, however, be a complex of species. The Philippine representative is much darker and the genitalia are so distinctive that conspecificity with *P. vagalis* is excluded. The medial area of the hindwing of *P. vagalis* is white, and the distal fascia of the forewing is much more bent.

*Etymology.* From the Latin, fuliginosus (sooty).

*Discussion.* The present species was first regarded as a much infuscated subspecies of *P. vagalis*, which is apparently absent in the Philippines. However, the considerable differences of the male and female genitalia make such an interpretation impossible. The quite variable genitalia published for *P. vagalis* make it well possible that this could constitute a complex of similar species. However, none of these so-called *P. vagalis*-genitalia displays the divergent characters of the Philippine species.

*Paracymoriza argenteolineata* sp. nov. (Pl. 1, Fig. 16)

*Types.* Holotype ♂: “Philippinen, Mindanao, 1050 m, Mt. Agtuuganon, 28. 5.–7. 6. 96, leg. Mey”. MNHU. Paratypes: 1 ♀ “Philippinen, Mindanao, 1050 m, Mt. Agtuuganon, 28. 5.–7. 6. 96, leg. Mey”; “Gen. Slide No. ♀ 490 W. Speidel”. MNHU. 2 ♂ “Philippinen, Mindanao, 1050 m, Mt. Agtuuganon, 28. 5.–7. 6. 96, leg. Mey”; “Gen. Slide No. ♂ 372/ ♂ 373 W. Speidel”. MNHU. 1 ♂ “Philippinen, Luzon, Bato Springs, 216 m, Mt. Banahaw, 6. 8. 2001,



leg. W. Mey”; “Gen. Slide No. ♂ 617 W. Speidel”. MNHU. 6 ♂ 1 ♀ “Philippinen, Luzon, Mt. Makiling, Flat Rocks, 8. 8. 2001, leg. W. Mey”. MNHU, 1 ♂ WSBN. 1 ♂ “Philippines, South Luzon, Mt. Isarog, 13° 40’ N 123° 20’ E, 530 m, submontane forest, at lighth, 22. iii. 2000, leg. M. Nuss”. SMTD. 1 ♂ “Philippines, South Luzon, Mt. Banahaw, 14° 02’ N 121° 27’ E 650 m, secondary forest, at light, 17.–18. iii. 2000, leg. M. Nuss”. SMTD.

*Description.* Length of forewing: 6 (♂)–10 (♀) mm. Forewing almost entirely grayish black, with some white scales medially. Proximal fascia silvery whitish. Distal fascia strongly bent, also silvery whitish. Hindwing slightly paler gray than forewing.

♂ genitalia (Pl. 6, fig. 67). Very similar to *Paracymoriza nigrella* sp. nov., but gnathos extremely slender and strongly sclerotized. Valva with 2 long and several smaller, inwardly directed setae, longer than half of valva. Aedeagus with wide cornutus.

♀ genitalia. Unknown.

*Distribution.* S. Luzon, Mindanao. Records of *Paracymoriza argenteolineata* sp. nov. cover an altitudinal range between 216 and 1050 m a.s.l.

*Relationship.* Belongs in the *nigra*-group. It is closely related to *P. nigra* (Warren, 1896) and *P. nigrella* sp. nov., but has distinctive silver ante- and postmedial fasciae.

*Etymology.* From the Latin, *argenteus* (silvery) and *lineatus* (lined).

### *Paracymoriza nigrella* sp. nov. (Pl. 1, Figs. 14, 15)

*Types.* Holotype ♂: “Philippinen, Samar, Concord, Cadac-an, 22.–24. 4. 1997, 150 m, leg. Mey & Speidel”. MNHU. Paratypes: 1 ♀ “Philippinen, Samar, San Mateo, Borongan, 26. 4. 1997, 40 m, leg. Mey & Speidel”. MNHU. 3 ♀ “Philippinen, Leyte, Baybay, VISCA, 13. 4. 1997, leg. Mey & Speidel”; “Gen. Slide No. ♀ 535 W. Speidel”; “Paratypus ♀ *Paracymoriza nigrella* Speidel, W. Speidel sel., 2000”. MNHU. 6 ♂ “Philippinen, Samar, Concord, Cadac-an, 22.–24. 4. 1997, 150 m, leg. Mey & Speidel”; one of them “Gen. Slide No. 391 ♂ W. Speidel”. MNHU. 2 ♂ “Philippinen, Samar, San Mateo, Borongan, 26. 4. 1997, 40 m, leg. Mey & Speidel”. MNHU, 1 ♂ WSBN. 3 ♂ 1 ♀ “Philippinen, Leyte, Lake Danao, 650 m, 14.–17. 4. 1997, leg. Mey & Speidel”. MNHU, 1 ♀ CIS. 1 ♂ “Philippinen, S-Leyte, Libas, Bagong river, 20. 4. 1997, 120 m, leg. Mey & Speidel”. MNHU.

*Description.* Length of forewing: 7 (♂)–8 (♀) mm. Forewing unicolorously dark gray, hindwing slightly paler gray. Female slightly darker than male. Extremely weak traces of slightly paler proximal and distal fasciae.

♂ genitalia (Pl. 6, fig. 65). General structure as in all other species of the genus: 2 long and several smaller apical setae of about half length of valva. Aedeagus comparatively short.

♀ genitalia (Pl. 11, fig. 92). Ductus bursae very short, with large colliculum, much wider between colliculum and corpus bursae. The ductus seminalis originates from widened part of ductus bursae. Corpus bursae slender, elongate.

*Distribution.* Leyte, Samar. Records of *Paracymoriza nigrella* sp. nov. cover an altitudinal range between 40 and 650 m a.s.l.

*Relationship.* Closely related to *P. nigra*, which may constitute a complex of similar species. *P. nigra* (or a close relative) is also found in the Philippines. *P. nigrella* sp. nov. is constantly smaller than *P. nigra*, and the widened part of the ductus bursae between the colliculum and the corpus bursae is strongly sclerotized and fused with the large colliculum in the latter species.

*Etymology.* From the Latin diminutiv of *niger* (black).

*Discussion.* Specimens from Luzon differ slightly in the structure of the male genitalia, they are not included in the type series and probably not conspecific, as the uncus is more slender (pl. 6, fig. 66). The following localities in Luzon are represented in the material studied:

Quezon, Infanta, Magsaysay; Mt. Banahaw, Kinabuhayan; Mt. Makiling, 400 m; South Luzon, Mt. Isarog, 13° 40' N 123° 20' E, 530 m; South Luzon, Bicol National Park, 13° 55' N 122° 57' E, 100 m; Bato Springs, 216 m; Mt. Banahaw; Mt. Makiling, Flat Rocks.

*Parapoynx leucographa* sp. nov. (Pl. 2, Figs. 17, 18)

*Types.* Holotype ♂: "Philippinen, Mindanao, 1050 m, Mt. Agtuaganon, 28. 5.–7. 6. 96, leg. Mey". MNHU. Paratypes: 1 ♂ 1 ♀ "Philippinen, Mindanao, Davao or., NO Boston, Caatijaan, 29. 5. 96, leg. W. Mey". MNHU. 2 ♂ "Philippinen, Mindanao, Surigao del Sur, SW Lingig, 28. 5. 1996, LF, leg. W. MEY". MNHU, 1 ♂ WSBN. 1 ♀ "Philippinen, Samar, San Mateo, Borongan, 26. 4. 1997, 40 m, leg. Mey & Speidel"; "Gen. Slide No. ♀ 494 W. Speidel". MNHU. 2 ♂ 2 ♀ "Philippinen, Samar, Concord, Cadac-an, 22.–24. 4. 1997, 150 m, leg. Mey & Speidel". MNHU. 2 ♀ "Philippinen, Luzon, Benguet, 19.–21. XI. 97, Adunot-river Unterlauf, leg. Mey, Ebert, Nuss". 1 ♀ WSBN, 1 ♀ CIS. 1 ♂ "Philippinen, Mindoro, Baco, Lantuyan, 13.–18. I. 1998, leg. Mey & Samarita"; "Gen. Slide No. 447 ♂ W. Speidel". MNHU. 1 ♂ "Philippinen, Luzon, Mt. Banahaw, Kinabuhayan, 17.–19. 3. 00, leg. Mey & Richter". MNHU. 1 ♂ 1 ♀ "Philippinen, Luzon, Zambales Mts., Pili, 5.–7. XI. 1998, 150 m, leg. Mey & Speidel". MNHU.

*Description.* Length of forewing: 7 (♂)–8 (♀) mm. Ground colour white. Forewing: Costal yellow, longitudinal fascia with dark brown border from base to distal fascia. Distal fascia oblique from costa towards tornus, brown, partly filled with yellowish scales fusing with brown submarginal fascia before tornal angle. Longitudinal brown fascia curved from 1/3 dorsal margin to dorsal end of distal fascia (above tornal angle). Marginal line brown and marginal area yellow. Hindwing with narrow brown proximal fascia near base. Distal fascia yellow, bordered brown at both sides. Marginal line brown and marginal area yellow.

♂ genitalia (Pl. 6, fig. 68). General structure as in all other species of the genus; vinculum with 2 apparent scale-brushes besides juxta. Aedeagus comparatively short and small.

♀ genitalia (Pl. 11, fig. 93). General structure as in the other species of the genus: corpus bursae with signum consisting of 2 strongly sclerotized, widely separated parallel short ribbons.

*Distribution.* N. and S. Luzon, Mindoro, Samar, Mindanao. Records of *Parapoynx leucographa* sp. nov. cover an altitudinal range between 40 and 1050 m a.s.l.

*Relationship.* Near *Parapoynx bilinealis* (Snellen, 1876), but generally more whitish. There are two black lines at the base of the hindwing in *P. bilinealis*, whereas there is only one in *P. leucographa*. Yellow postmedial fascia narrower, with dark brown border on both sides, white ground colour between postmedial and marginal fascia more expanded, nearly no traces of black spots in the apical region of the hindwing in *P. leucographa* sp. nov. The figure of the type specimen of *P. bilinealis* from the Punjab, India (Snellen, 1876) and the figure of the specimen from Thailand (Yoshiyasu, 1987) differ in the shape of the hindwing. Moreover, the specimen from Thailand has two black points below the apex of the hindwing which seem to be absent in the figure of the type of *P. bilinealis* and are also absent in *P. leucographa* sp. nov. The figure of the specimens from the Ryukyu Islands (Yoshiyasu, 1985) seems also not to represent *P. bilinealis*, but possibly represents a further undescribed taxon near to the present species, however with dark hindwing-base.

*Etymology.* From the Greek, leucos (white) and graphein (to write).

*Parapoynx pycnarmonides* sp. nov. (Pl. 2, Fig. 19)

*Type.* Holotype ♂: "Philippinen, Luzon, Mt. Malinao, Amater, 25.–26. 3. 2000, LF, leg.

Mey & Ebert" "Gen. Slide No. 556 ♂ W. Speidel". MNHU.

*Description.* Length of forewing ♂: 8 mm. White. Forewing with some gray suffusion at costa near base. Disco-cellular spot round, gray. Distal fascia extremely weak, hardly discernable. Indistinct traces of submarginal grayish line, starting at gray point on costa. Some apical and tornal gray marginal fringes. Hindwing with round gray spot in middle of wing-base, and 2 minute satellite-spots, one of them in costal area and other in anal area. Another gray spot at middle of costa and fourth gray spot near anal angle. Traces of narrow gray marginal line in subapical region.

♂ genitalia (Pl. 6, fig. 69). Uncus slender, gnathos very broad basally, triangular. Valva quadrangular, almost trapezoid, with long basal extension of sacculus. Aedeagus with dark, spined area of vesica.

♀ genitalia. Unknown.

*Distribution.* Only known from S. Luzon.

*Relationship.* Unlike all hitherto known *Parapoynx*-species, but very similar to *Zebronia idalis* Walker, 1859 from Borneo. However in the latter species, the two satellite-spots near the basal spot in the hindwing are absent and the black spots are smaller. *Zebronia idalis* may possibly prove to belong to *Parapoynx* as well, when the genitalia are examined. The male genitalia of *P. crisonalis* (Walker, 1859) are very similar in the unusual form of the valva. Therefore, *P. crisonalis* is probably a closely related species, but has a much smaller basal extension of the sacculus in the male genitalia. The basal extension of the sacculus, although slightly smaller, is also present, in *Parapoynx affinis* Guenée, 1854 which may therefore also be related, but the form of the valva is normal.

*Etymology.* Derived from the generic name *Pycnarmon* Lederer, 1863 (Pyraustinae, Spilomelini).

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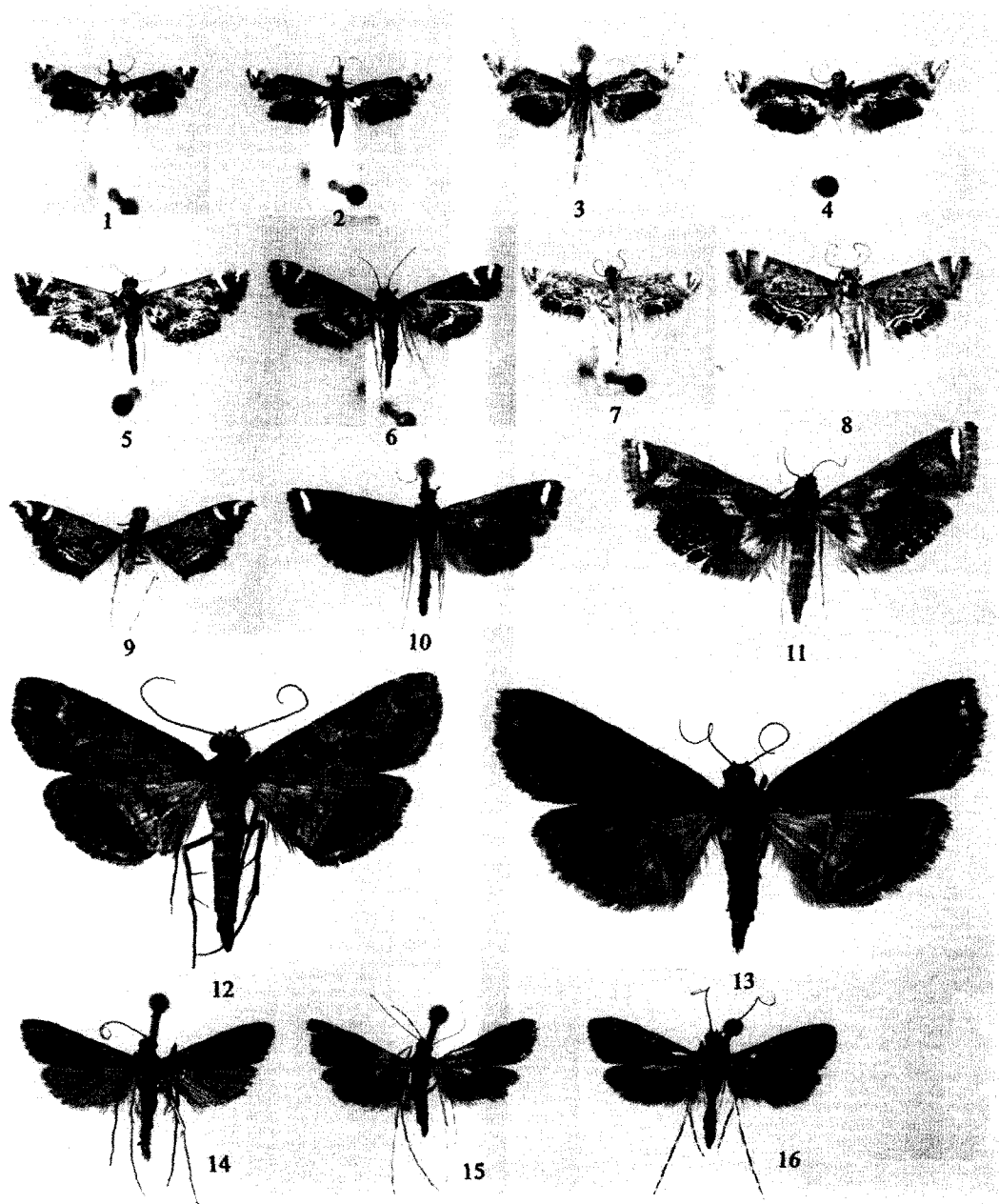
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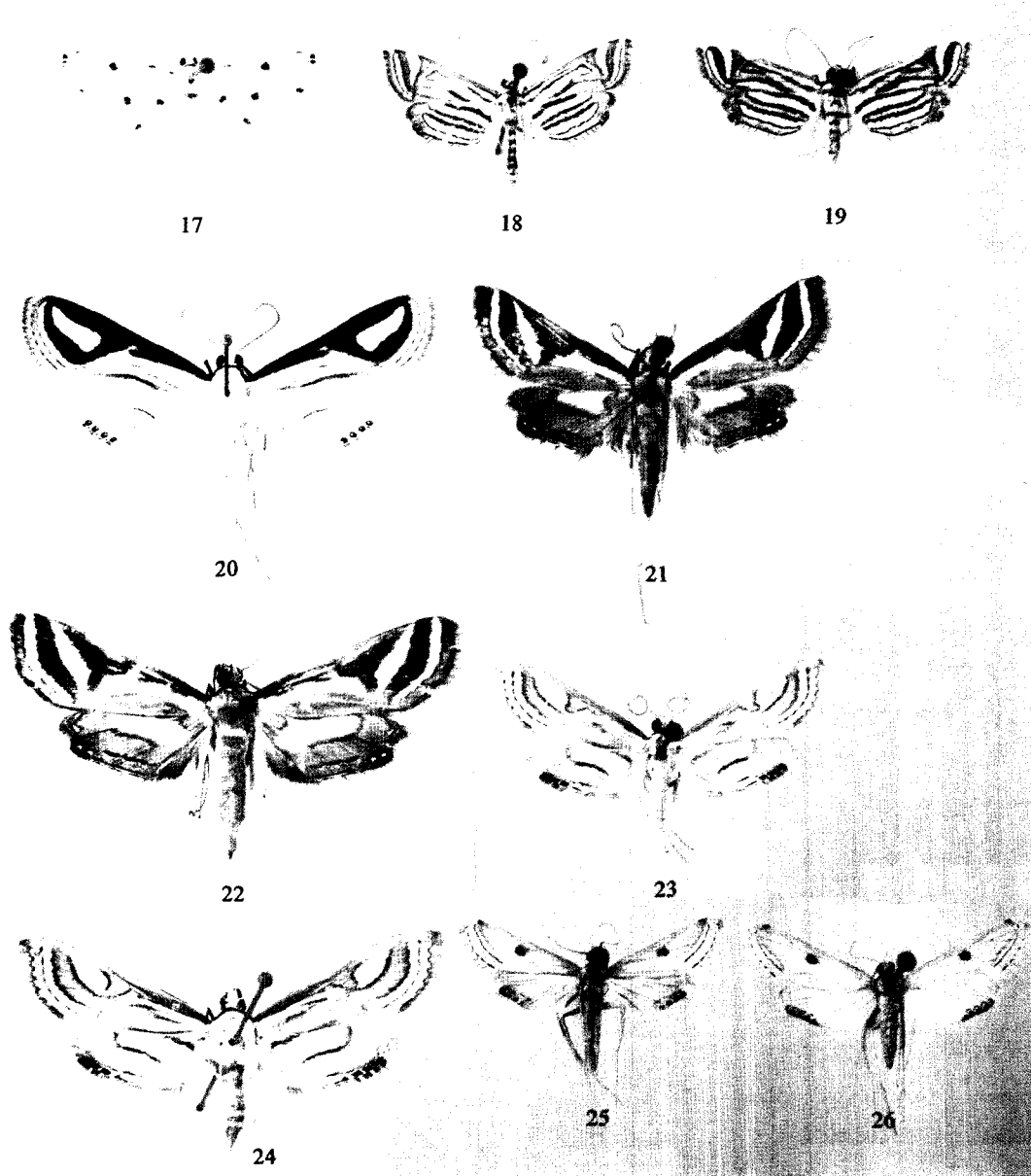
(Received: October 5, 2002, Accepted: December 20, 2002)

## Plate 1



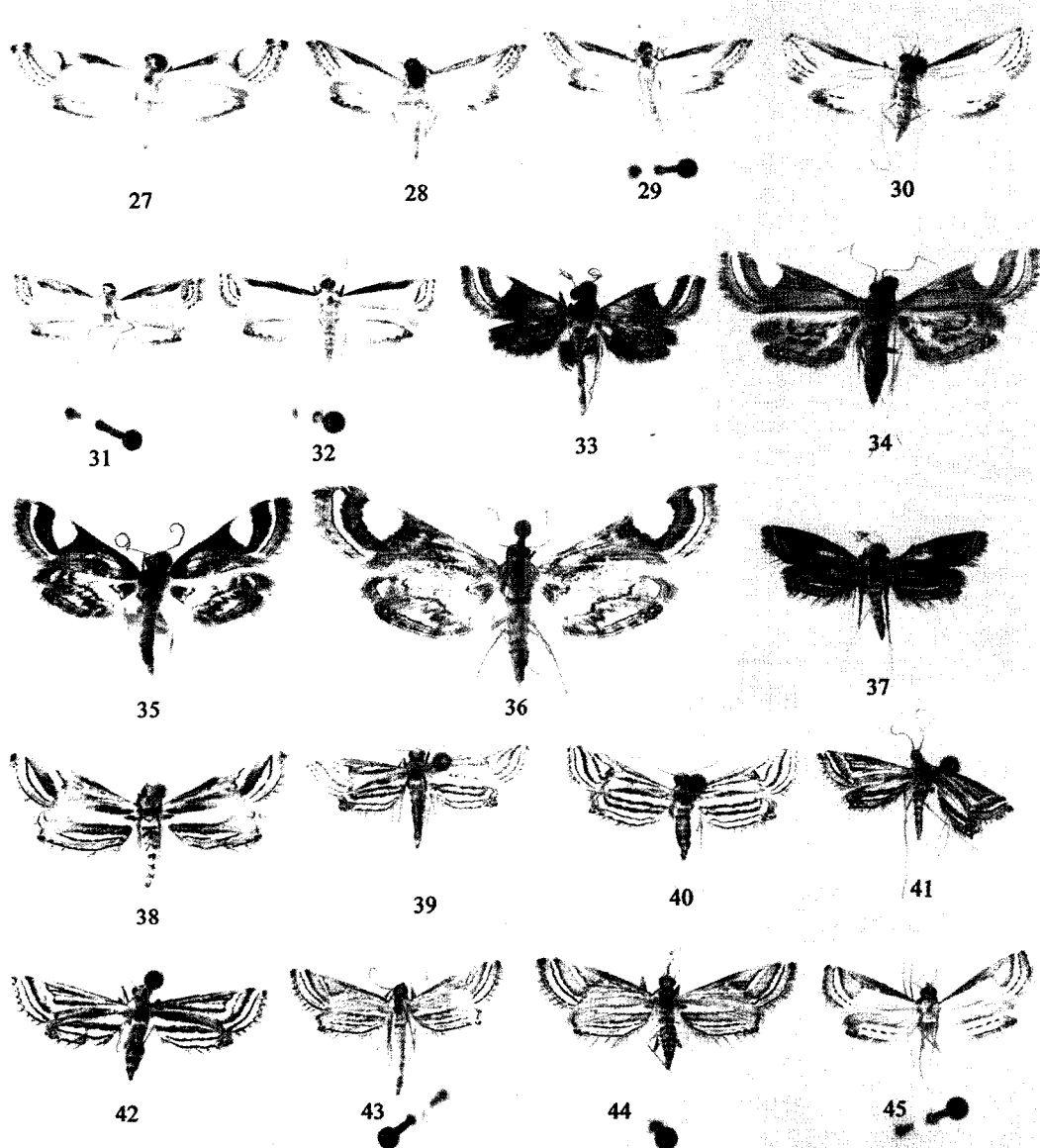
**Figs. 1–16.** 1. *Nymphicula negrosensis* sp. nov. (male); 2. *Nymphicula negrosensis* sp. nov. (female); 3. *Nymphicula mindorensis* sp. nov. (male); 4. *Nymphicula mindorensis* sp. nov. (female); 5. *Nymphicula zambalensis* sp. nov. (male); 6. *Nymphicula zambalensis* sp. nov. (female); 7. *Nymphicula samarensis* sp. nov. (male); 8. *Nymphicula samarensis* sp. nov. (female); 9. *Nymphicula banauensis* sp. nov. (male); 10. *Margarosticha nigrescens* sp. nov. (male); 11. *Margarosticha nigrescens* sp. nov. (female); 12. *Paracymoriza fuliginosa* sp. nov. (male); 13. *Paracymoriza fuliginosa* sp. nov. (female); 14. *Paracymoriza nigrella* sp. nov. (male); 15. *Paracymoriza nigrella* sp. nov. (female); 16. *Paracymoriza argenteolineata* sp. nov. (male)

## Plate 2



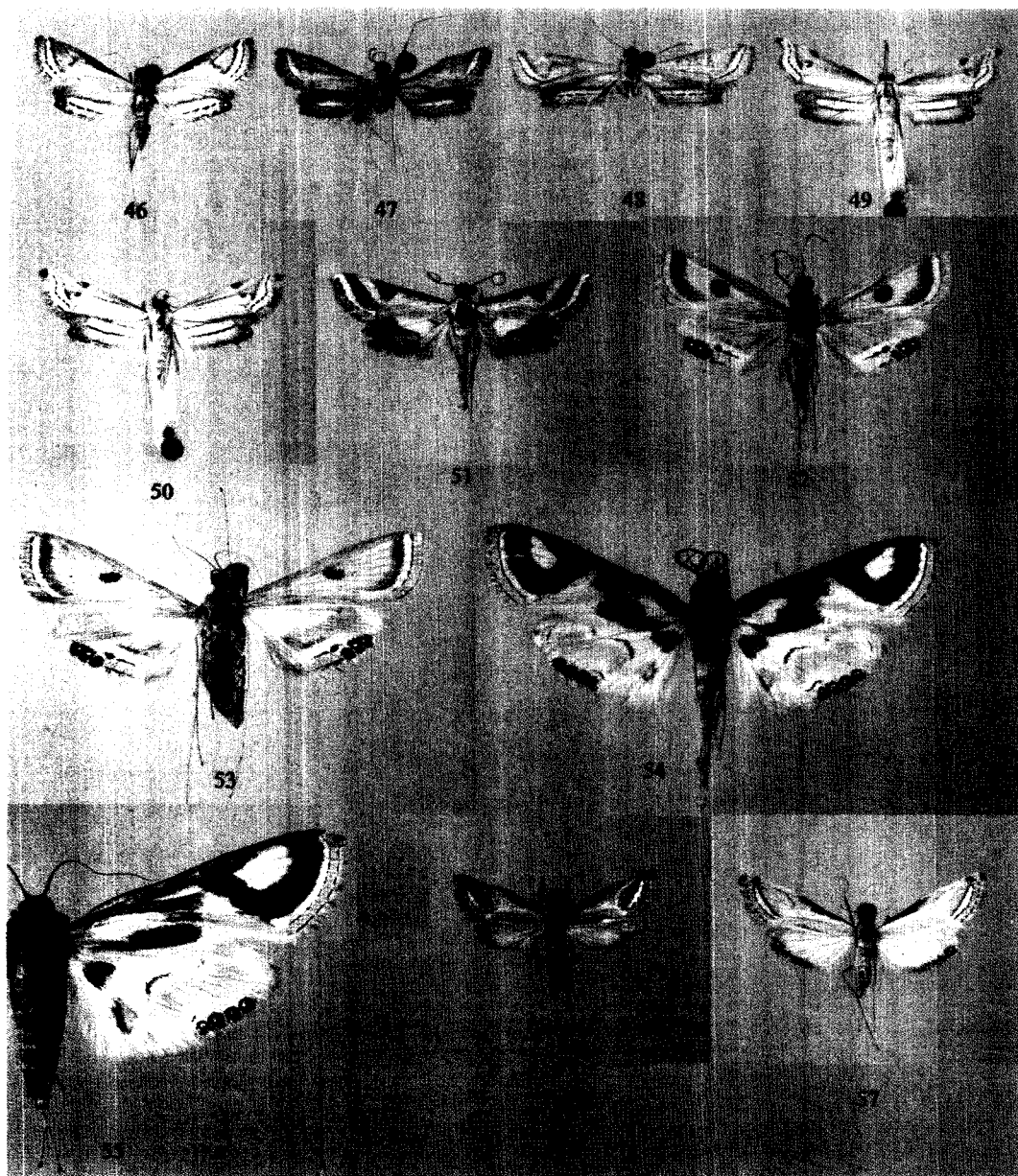
**Figs. 17-26.** 17. *Parapoynx leucographa* sp. nov. (male); 18. *Parapoynx leucographa* sp. nov. (female); 19. *Parapoynx pycnarmonides* sp. nov. (male); 20. *Eoophyla pulchralis* sp. nov. (male); 21. *Eoophyla fontis* sp. nov. (male); 22. *Eoophyla fontis* sp. nov. (female); 23. *Eoophyla nussi* sp. nov. (male); 24. *Eoophyla nussi* sp. nov. (female); 25. *Eoophyla naumanni* sp. nov. (male); 26. *Eoophyla naumanni* sp. nov. (female)

## Plate 3



**Figs. 27–45.** 27. *Eoophyla yeni* sp. nov. (female); 28. *Eoophyla quezonensis* sp. nov. (male); 29. *Eoophyla quezonensis* sp. nov. (male); 30. *Eoophyla cf. quezonensis* sp. nov. (female); 31. *Eoophyla bicolensis* sp. nov. (male); 32. *Eoophyla bicolensis* sp. nov. (female); 33. *Eoophyla litoralis* sp. nov. (male); 34. *Eoophyla litoralis* sp. nov. (female); 35. *Eoophyla montanalis* sp. nov. (male); 36. *Eoophyla montanalis* sp. nov. (female); 37. *Eoophyla callilithalis* sp. nov. (male); 38. *Eoophyla callilithalis* sp. nov. (female); 39. *Eoophyla schintlmeisteri* sp. nov. (male); 40. *Eoophyla schintlmeisteri* sp. nov. (female); 41. *Eoophyla leytenensis* sp. nov. (male); 42. *Eoophyla leytenensis* sp. nov. (female); 43. *Eoophyla cernyi* sp. nov. (male); 44. *Eoophyla cernyi* sp. nov. (female); 45. *Eoophyla napoleoni* sp. nov. (male)

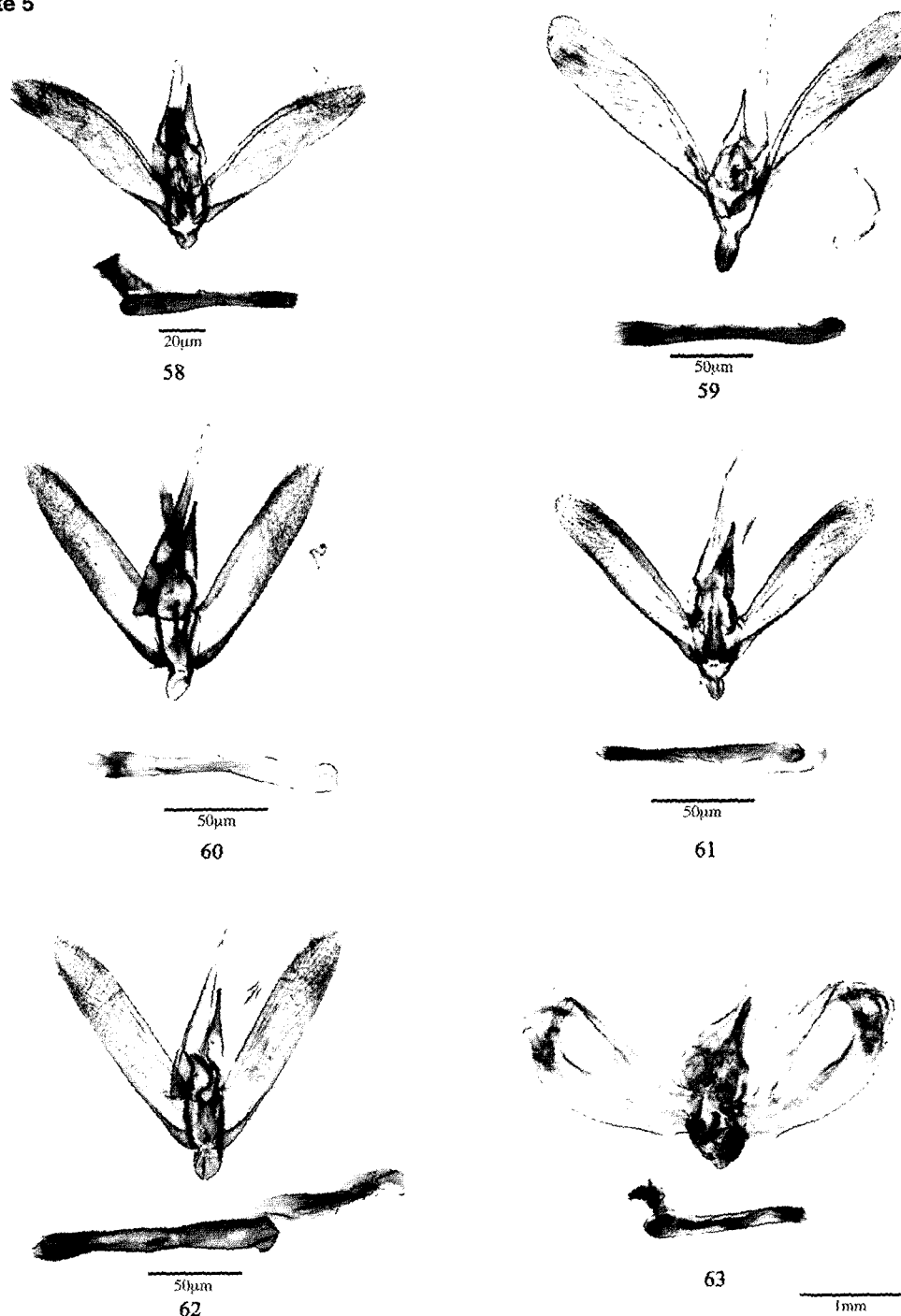
## Plate 4



**Figs. 46–57.** 46. *Eoophyla napoleoni* sp. nov. (female); 47. *Eoophyla cervinalis* sp. nov. (male); 48. *Eoophyla cervinalis* sp. nov. (female); 49. *Eristena samaritai* sp. nov. (male); 50. *Eristena samaritai* sp. nov. (female); 51. *Eoophyla angustalis* (Sauber, 1902) (male); 52. *Eoophyla simplex* (West, 1931) (male); 53. *Eoophyla simplex* (West, 1931) (female); 54. *Eoophyla snelleni* Semper, 1902 (male); 55. *Eoophyla snelleni* Semper, 1902 (female); 56. *Eoophyla richteri* sp. nov. (male); 57. *Eoophyla richteri* sp. nov. (female)

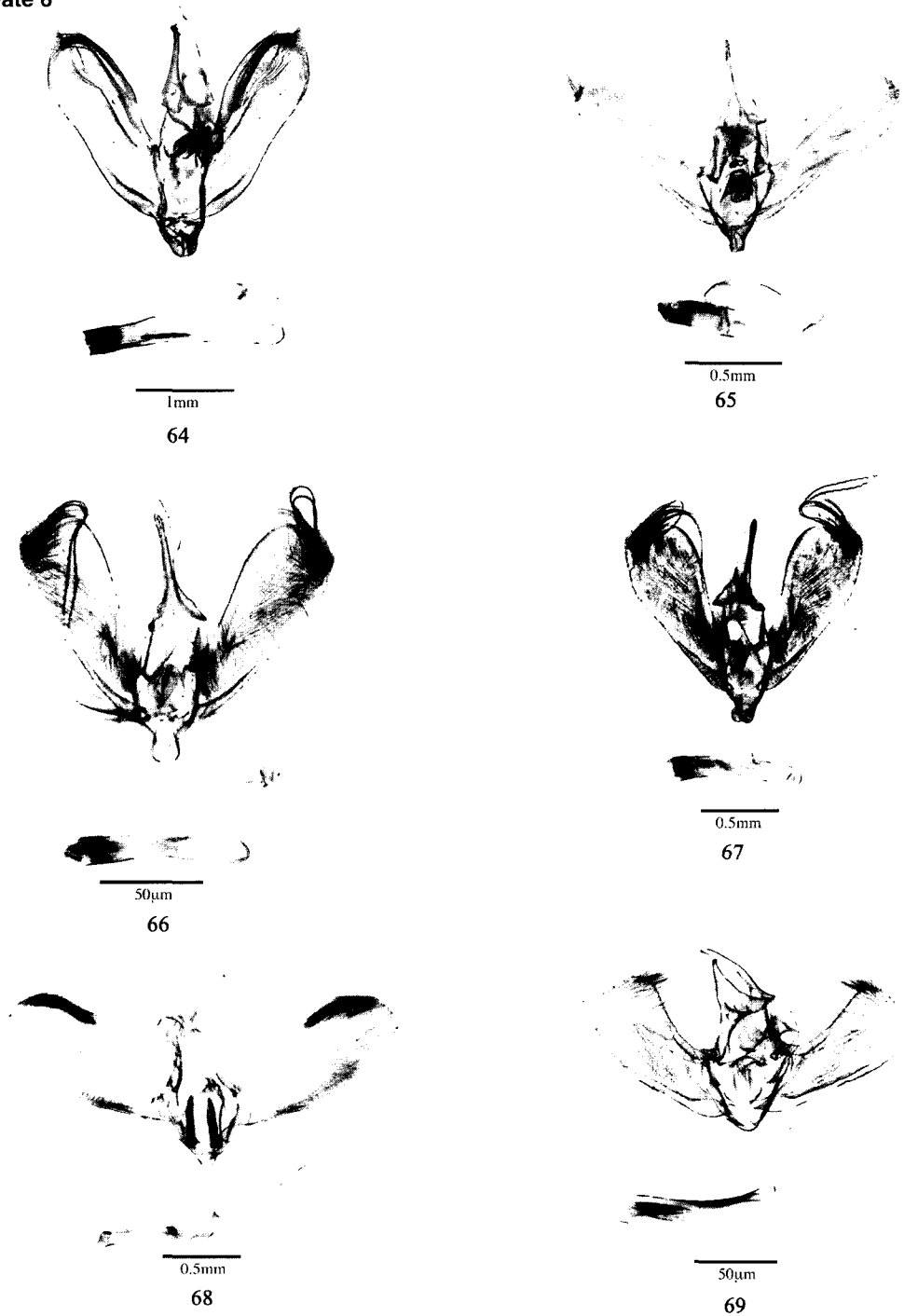


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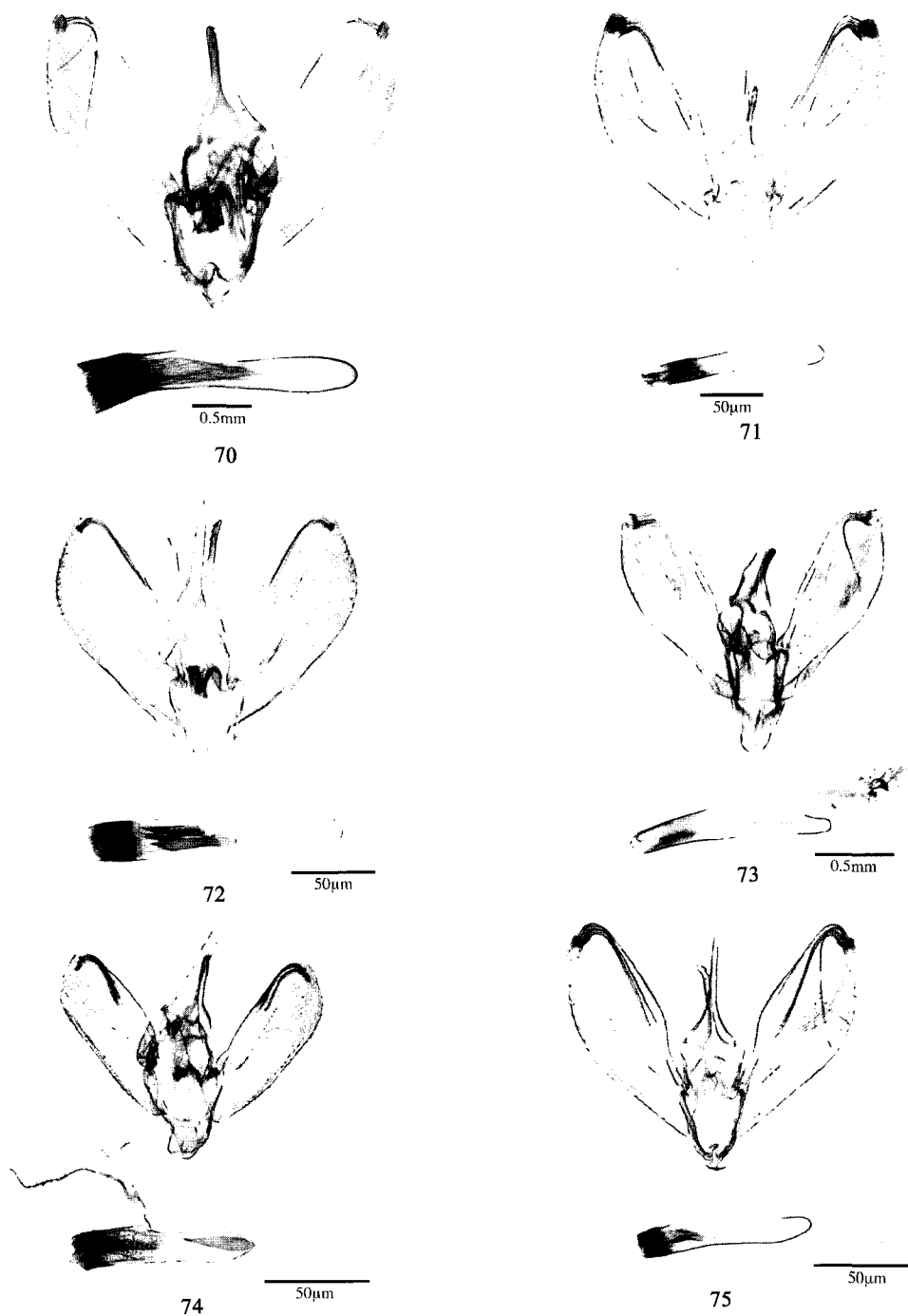
**Figs. 58–63 (male genitalia).** 58. *Nymphicula negrosensis* sp. nov. (GS 486); 59. *Nymphicula mindorensis* sp. nov. (GS 488); 60. *Nymphicula zambalensis* sp. nov. (GS 475); 61. *Nymphicula samarensis* sp. nov. (GS 531); 62. *Nymphicula banauensis* sp. nov. (GS 533); 63. *Margarosticha nigrescens* sp. nov. (GS 454)

## Plate 6



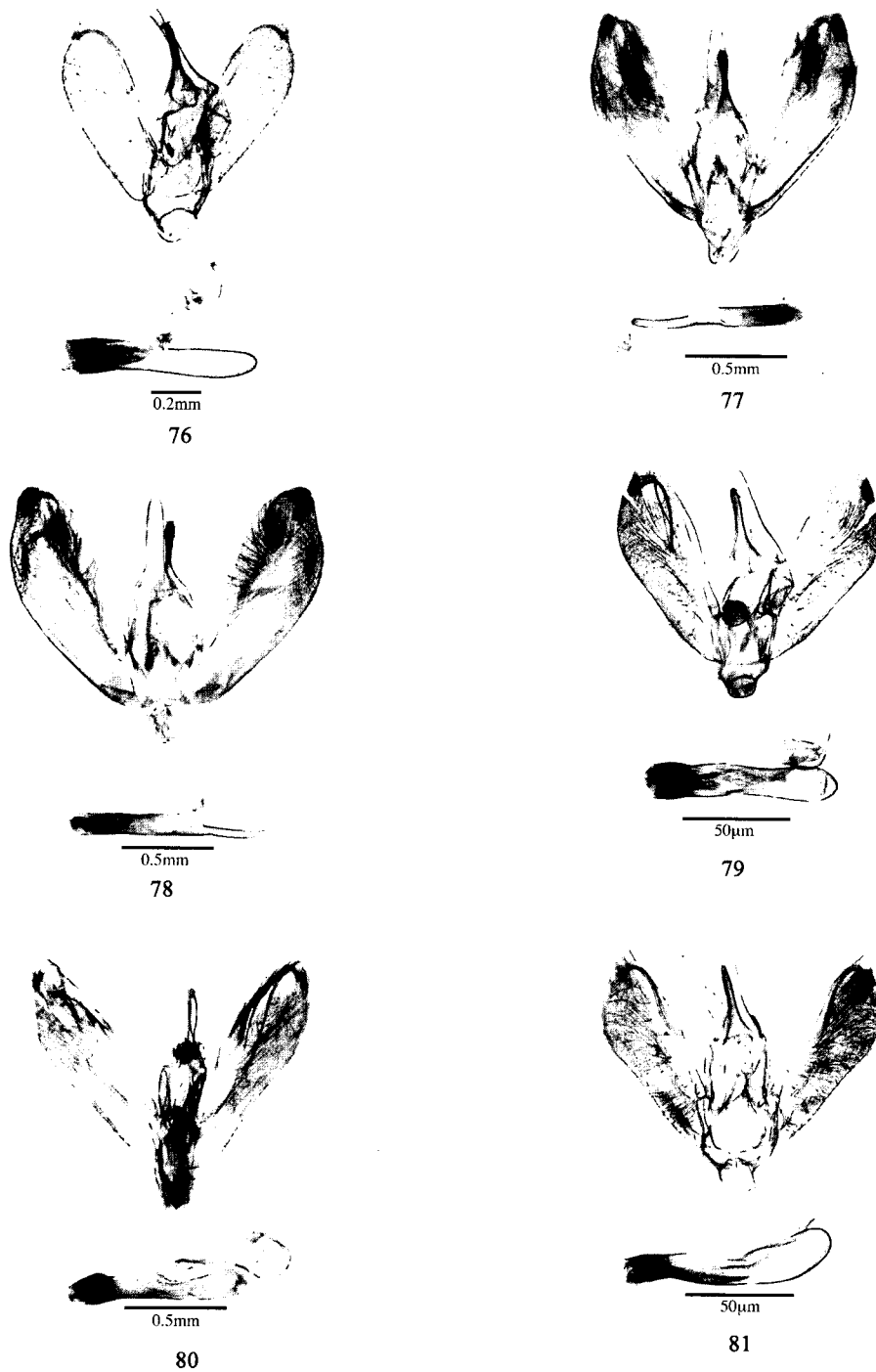
**Figs. 64–69 (male genitalia).** 64. *Paracymoriza fuliginosa* sp. nov. (GS 442); 65. *Paracymoriza nigrella* sp. nov. (GS 391); 66. *Paracymoriza* nr. *nigrella* sp. nov. (GS 544); 67. *Paracymoriza argenteolineata* sp. nov. (GS 617); 68. *Parapoynx leucographa* sp. nov. (GS 447); 69. *Parapoynx pycnarmonides* sp. nov. (GS 556)

## Plate 7



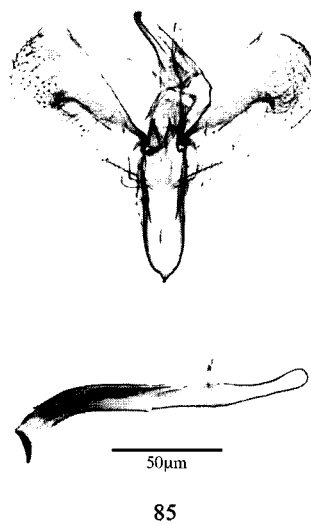
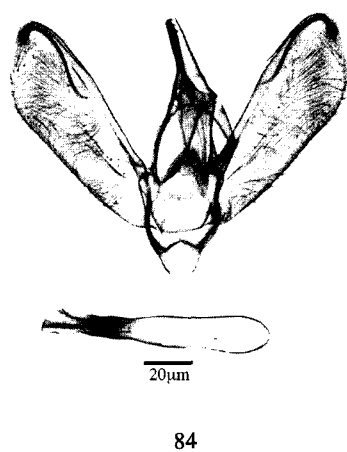
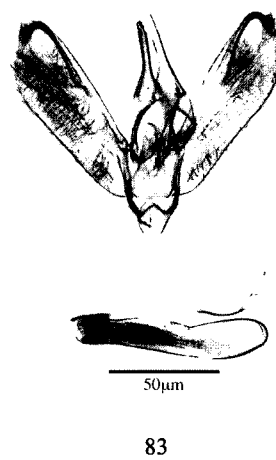
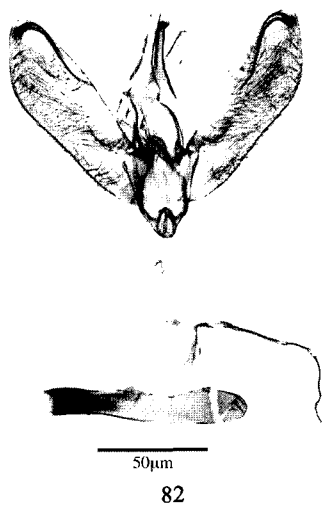
**Figs. 70–75 (male genitalia).** 70. *Eoophyla pulchralis* sp. nov. (GS 440); 71. *Eoophyla fontis* sp. nov. (GS 529); 72. *Eoophyla nussi* sp. nov. (GS 527); 73. *Eoophyla naumanni* sp. nov. (GS 461); 74. *Eoophyla richteri* sp. nov. (GS 496); 75. *Eoophyla quezonensis* sp. nov. (GS 547)

## Plate 8



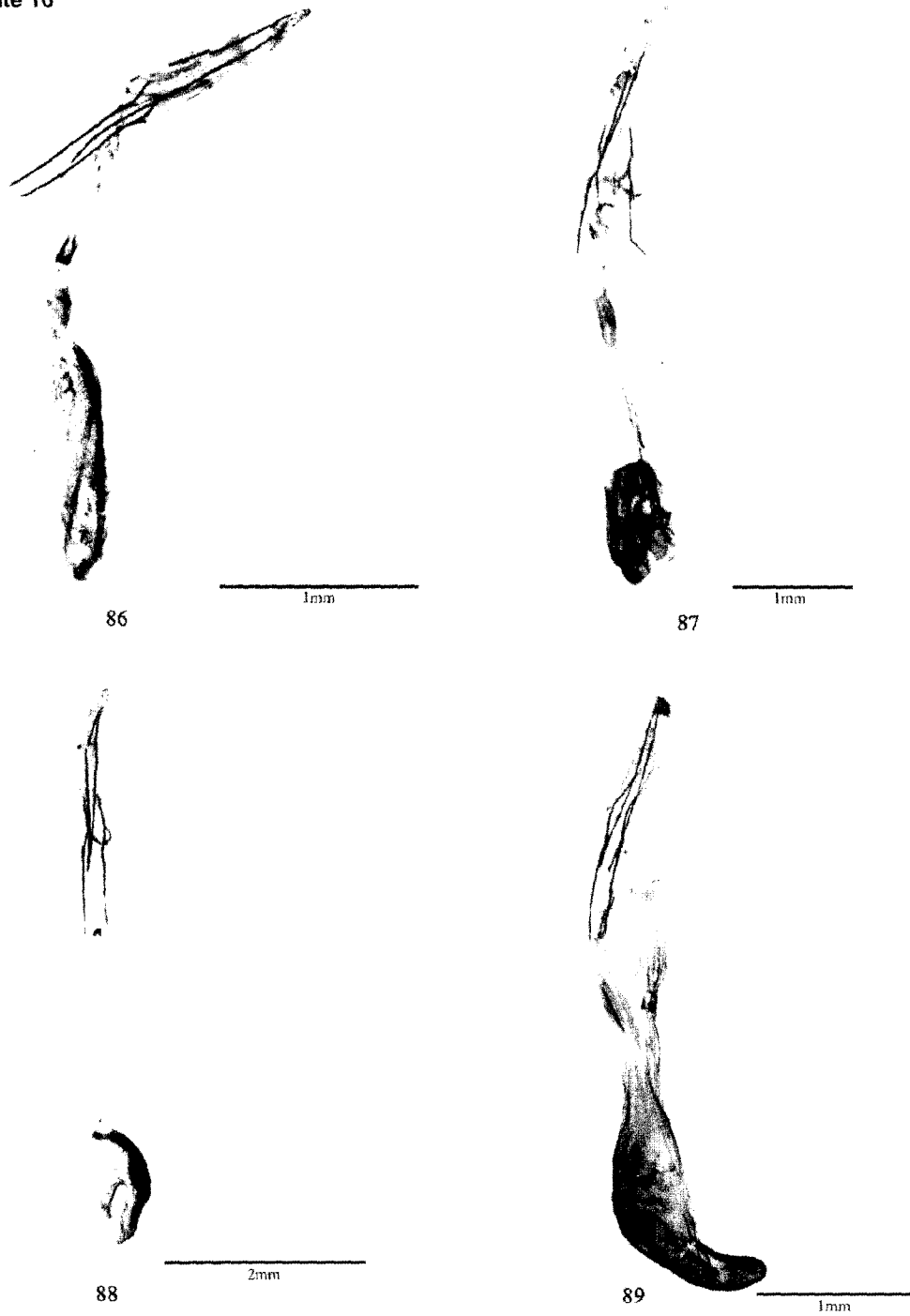
**Figs. 76–81 (male genitalia).** 76. *Eoophyla bicoloris* sp. nov. (GS 614); 77. *Eoophyla litoralis* sp. nov. (GS 451); 78. *Eoophyla montanalis* sp. nov. (GS 450); 79. *Eoophyla callilithalis* sp. nov. (GS 542); 80. *Eoophyla schintlmeisteri* sp. nov. (GS 459); 81. *Eoophyla leytenensis* sp. nov. (GS 481)

## Plate 9



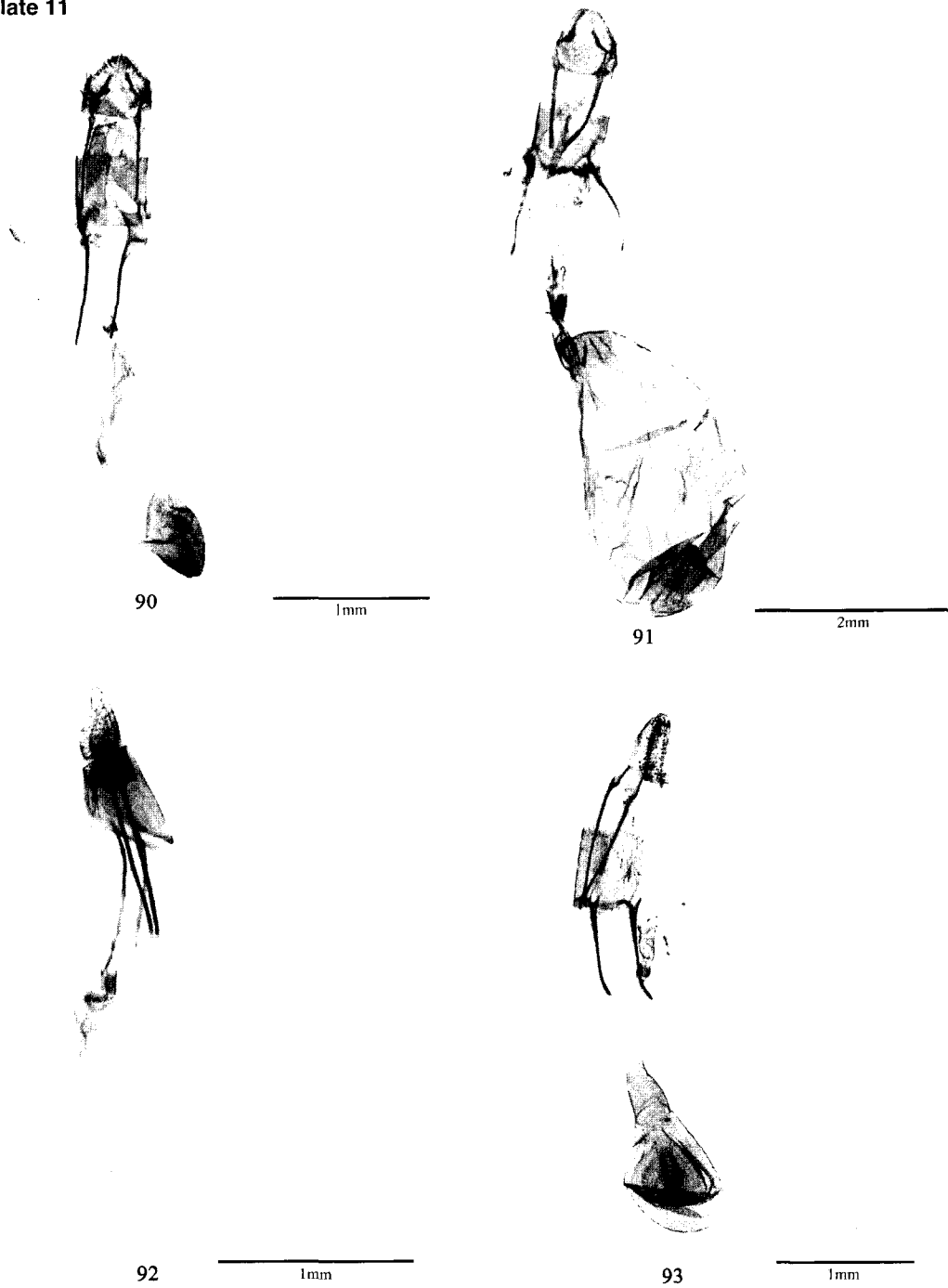
**Figs. 82–85 (male genitalia).** 82. *Eoophyla cernyi* sp. nov. (GS 543); 83. *Eoophyla napoleoni* sp. nov. (GS 557); 84. *Eoophyla cervinalis* sp. nov. (GS 473); 85. *Eristena samaritai* sp. nov. (GS 471)

## Plate 10



86-89 (female genitalia). 86. *Nymphicula negrosensis* sp. nov. (GS 487); 87. *Nymphicula mindorensis* (GS 489); 88. *Nymphicula zambalensis* sp. nov. (GS 476); 89. *Nymphicula samarensis* sp. nov. (GS

## Plate 11



**Figs. 90-93 (female genitalia).** 90. *Margarosticha nigrescens* sp. nov. (GS 453); 91. *Paracymoriza fuliginosa* sp. nov. (GS 452); 92. *Paracymoriza nigrella* sp. nov. (GS 535); 93. *Parapoinx leucographa* sp. nov. (GS 494)

## Plate 12



94

2mm



95

2mm



96

1mm



97

1mm

**Figs. 94–97 (female genitalia).** 94. *Eoophyla fontis* sp. nov. (GS 528); 95. *Eoophyla nussi* sp. nov. (GS 455); 96. *Eoophyla naumanni* sp. nov. (GS 538); 97. *Eoophyla yeni* sp. nov. (GS 482)



## Plate 13



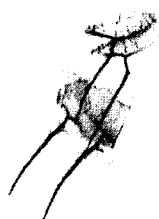
98

1mm



99

1mm



100

1mm



101

1mm

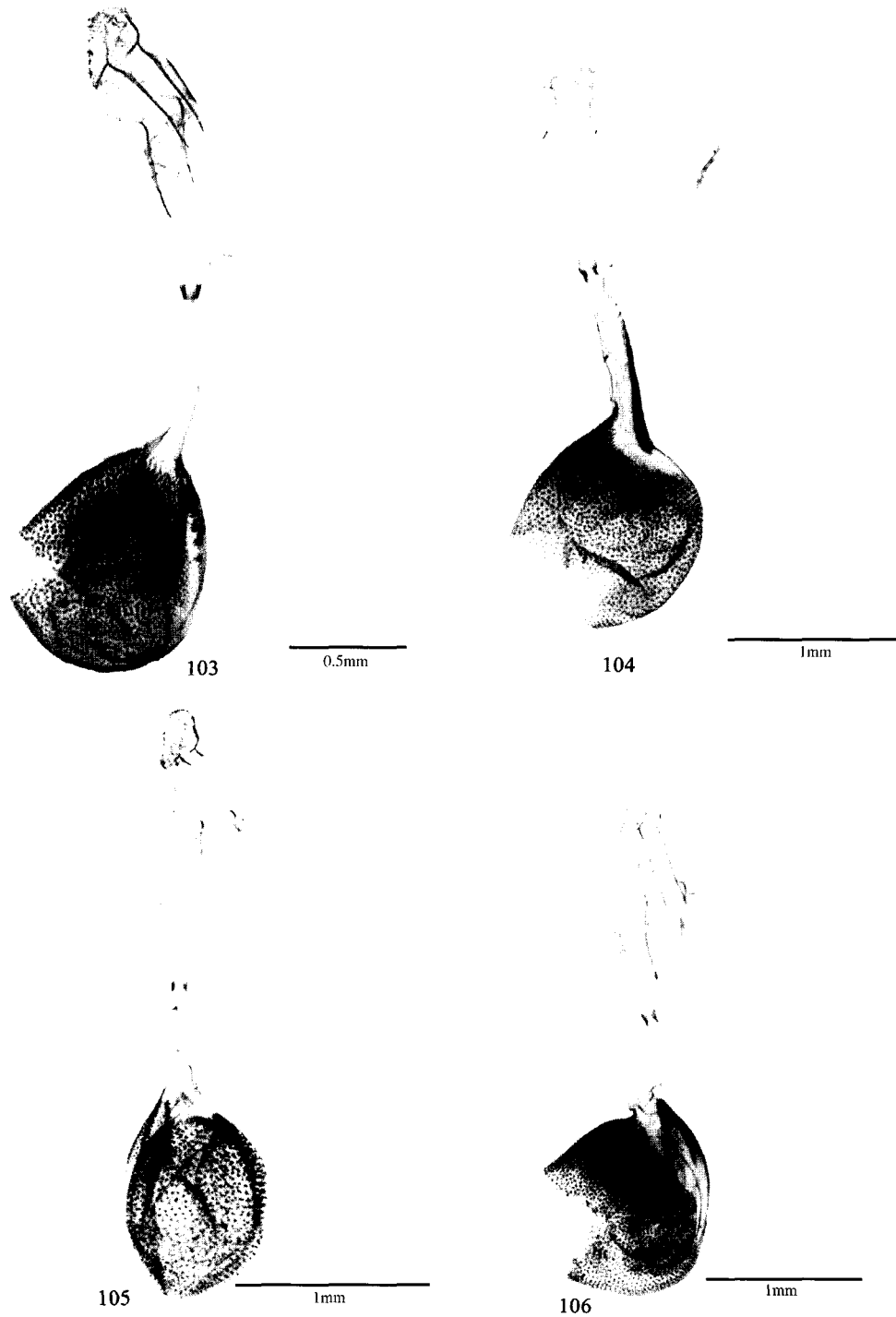


102

1mm

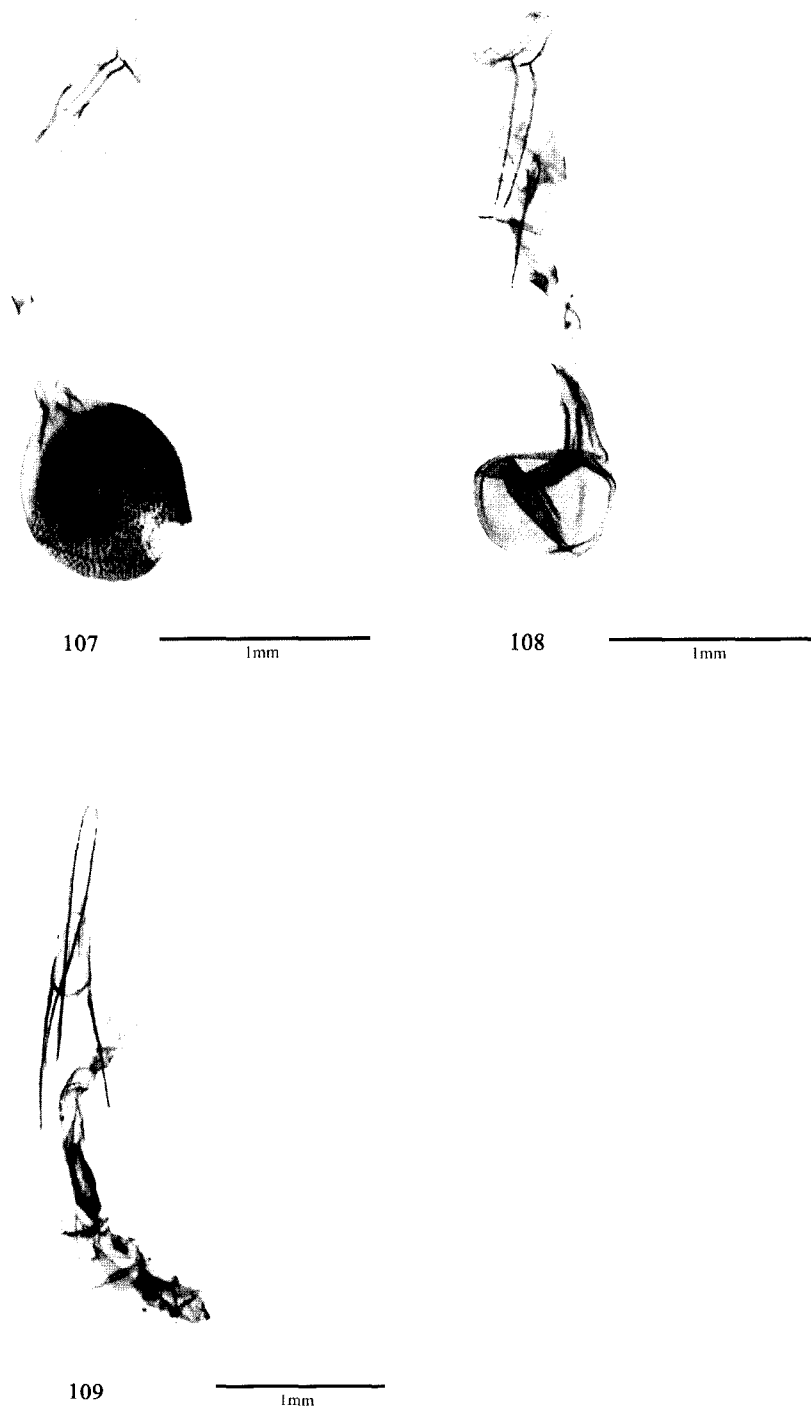
**Figs. 98–102 (female genitalia).** 98. *Eoophyla richteri* sp. nov. (GS 497); 99. *Eoophyla* cf. *quezonensis* sp. nov. (GS 554); 100. *Eoophyla bicolensis* sp. nov. (GS 548); 101. *Eoophyla litoralis* sp. nov. (GS 456); 102. *Eoophyla montanalis* sp. nov. (GS 407)

## Plate 14



**Figs. 103–106 (female genitalia).** 103. *Eoophyla schintlmeisteri* sp. nov. (GS 470); 104. *Eoophyla leytensis* sp. nov. (GS 480); 105. *Eoophyla cernyi* sp. nov. (GS 540); 106. *Eoophyla napoleoni* sp. nov. (GS 495)

## Plate 15



**Figs. 107–109 (female genitalia).** 107. *Eoophyla cervinalis* sp. nov. (GS 534); 108. *Eoophyla callilithalis* sp. nov. (GS 545); 109. *Eristena samaritai* sp. nov. (GS 472)